COUNTY BOROUGH OF WARRINGTON.

ANNUAL REPORT

OF THE

Medical Officer of Health

ON THE

SANITARY CONDITION OF WARRINGTON

DURING THE YEAR 1925.

G. W. N. JOSEPH, M.D., D.P.H.,

Medical Officer of Health, School Medical Officer, Tuberculosis Officer, and Medical Superintendent of Corporation Hospitals, Sanatorium and Maternity Home.



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County Borough of Warrington.

1925-26.

HEALTH COMMITTEE.

Mayor:

COUNCILLOR JAMES T. LOCKER, J.P.

Chairman:

ALDERMAN JAMES EVANS, J.P.

DEPUTY-CHAIRMAN:

COUNCILLOR STRINGER.

ALDERMAN	TINNION, J.P.		COUNCILLOR	DALE.
,,	BROADHURST, J.P.		,,	ROBERTS.
COUNCILLOR	CONSTANCE BROADBENT, J.P.		,,	SHAW.
,,	CROWE, J.P.		,,	SIMKIN.
,,	GREENWOOD.		,,	STARKEY.
,,	PLINSTON, J.P.	*	,,	SEABURY.

Maternity and Child Welfare Committee.

All the members of the Health Committee, together with the following Co-opted Members:—

MRS. LANGDALE,
,, HAZELDINE.

Blind Persons Act Sub-Committee.

All the members of the Health Committee, together with the following Co-opted Members:—

MR. S. W. JEFFERY,
,, H. TREPESS,
,, REX FURNESS,
,, A. HOWARD,
,, C. CURRIE.

Town Clerk:

A. T. HALLAWAY, ESQ.

*Councillor Constable resigned in November, 1925, and Councillor Seabury was appointed to the Committee in his stead.

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To the Chairman and Members of the
Health Committee.

Ladies and Gentlemen,—

I beg to submit to you my Thirteenth Annual Report (and the forty-ninth of the series) on the Health Conditions of the Borough, namely that for the year 1925.

For this year the Ministry of Health require a "Survey Report," which, in addition to the usual features, should contain a general review of the progress made during the past five years.

The **Population** of the Borough for 1925 was assessed by the Registrar-General as 77,970, compared with 78,600 at the Census four years previously.

Some remarks on this estimated reduction and its effect on our vital statistics are given on page 8.

Our **General Death Rate** for 1925 was 13.5 per 1,000, and the **Birth Rate** 21.7 per 1,000 of the population.

The **Infantile Mortality Rate** was 86 per 1,000 children born, and for the tenth year in succession the rate has not exceeded 100 per 1,000.

A further improvement is noticeable in the **Maternal Mortality Rate,** which was .06 per 1,000 in 1925, compared with .08 per 1,000 in 1924.

An interesting table is given on page 11, showing the various vital statistics of the Borough for the past twenty-five years grouped in five yearly periods. It will be seen that there has been a steady decrease in both the general and the Infantile Mortality rates in each quinquennium from 18.5 and 160 per 1,000 respectively to 12.1 and 81.6 per 1,000. In fact, the infantile death rate has been approximately halved in this time.

Progress has been made during the past five years in every branch of public health, and the increase in the amount of work done will be evident from the comparative tables in each section. Some of the main features are:—

(1) The completion and opening of our New Sanatorium at Weaverham, with accommodation for 80 patients (page 85).

(2) The provision of a scheme for dealing with cases of surgical tuberculosis (page 90).

(3) The reversion of the hospital at Sankey to its original use (i.e., treatment of smallpox), and the making of arrangements with neighbouring authorities for the joint use of this institution (page 68).

(4) The establishment of an ante natal clinic at the Health Office (page 114).

(5) The inauguration of a scheme for the Welfare of Blind Persons in the Borough (page 126).

(6) Distinct progress, too, though slow, has been made in Housing (page 43).

(7) More attention has been devoted to education of the public in matters of health.

The question of conversion to the water carriage system of sewerage has not been lost sight of, and the Health Committee have considered it from time to time (see Report page 129). Apart from the great cost entailed, any wholesale conversion of pail closets is impossible until Warrington has obtained a new water supply.

In the near future we will have to consider—

(1) The completion of our orthopædic scheme by the inclusion of facilities for children under five years of age to attend the centre at Whitecross Hospital.

(2) Provision of dental treatment in connection with our consultation centres for mothers and children, and also in connection with the tuberculosis dispensary.

(3) Extension and improvements in the accommodation for patients and staff at our Maternity Home.

During 1925 two of the Sanitary Inspectors, Mr. Power and Mr. Jones, obtained other posts, and Mr. Barton and Mr. Molyneux were appointed in their stead.

Much valuable work has been carried out in every department during the year, and I have to thank the whole of the staff for their very hearty co-operation, and the efficient manner in which they have performed their various duties.

I would like to take this opportunity of placing on record my appreciation of the cordial support always afforded me by the members of the Health Committee and the Council.

I am, Ladies and Gentlemen,

Your Obedient Servant,

G. W. N. JOSEPH.

Natural and Social Conditions of the District.

Physical Features and General Character of the Town.

The area of Warrington at present is 3,145 acres. Some remarks on the physical features and general character of the town were included in my Report for 1919, to which reference can be made.

POPULATION.—At the Census of 1921 the actual population as enumerated was 76,811. An adjustment, however, was made by the Registrar General owing to the fact that the holiday period was in progress, and we were asked to use the estimated midyear population for 1921 of 78,600.

The population for the past five years has been:—

1921	Census population (R. G.'s figures) ...	78,600
1922	 ,, ,, ...	79,150
1923	 ,, ,, ...	78,910
1924	 ,, ,, ...	78,120
1925	 for calculating birth rate ...	78,260
	,, ,, death ,, ...	77,970

Once again therefore the Registrar General has estimated that instead of any increase there has been an actual decrease in the population of this Borough. In fact, the figure we are asked to use is lower than the Census figure of five years ago.

During this same period there has been an actual increase of births over deaths of 4,145, as follows:—

	Births.	Deaths.	Increase.
1921 ...	2,033 ...	965 ...	1,068
1922 ...	1,790 ...	959 ...	831
1923 ...	1,768 ...	868 ...	900
1924 ...	1,642 ...	936 ...	706
1925 ...	1,699 ...	1,059 ...	640
		Total ...	4,145

Further, during this period 547 new houses have been built and tenanted within the area without relieving to any large extent the great overcrowding that exists. The electoral register, too, for this period shows a continuous increase:—

1922	...	...	34,335	Parliamentary Electors
1923	...	...	34,604	,, ,,
1924	...	...	35,203	,, ,,
1925	...	...	35,562	,, ,,

Similarly there has been an increase of more than 600 amongst the insured persons resident in the Borough.

Taking all these facts into consideration, I cannot believe that there has been any decrease in the population of the town during the past five years. I wrote in 1925 to the Registrar General, who maintained that any natural increase had been counteracted by outward migration.

This question of population is a very important one, as our main vital statistics, the general death rate and the birth rate, are based upon it.

Any reduction of population raises the death rate and the birth rate and vice versa (the number of deaths and births remaining the same).

In addition to this reduction in population we have been given a factor of correction which still further increases our death rate for the year, for we are asked to multiply the actual rate by a standardising factor, 1·099.

OCCUPATIONS BY SEX OF PERSONS AGED 12 YEARS AND OVER, FROM CENSUS RETURN, 1921.

Occupation.	Males.	Females
Total Population	38,094	38,717
Under 12 years of age	9,525	9,390
Aged 12 years and over	28,569	29,327
Total occupied, aged 12 years and over	25,788	9,793
Total unoccupied and retired, aged 12 years and over	2,781	19,534
I.—Fishermen	2	...
II.—Agricultural Occupations	181	35
III.—Mining and Quarrying Occupations	35	...
IV.—Workers in the Treatment of Non-Metalliferous Mine and Quarry Products (excluding workers in Gas Works)	25	27
V.—Makers of Bricks, Pottery and Glass	101	41
VI.—Workers in Chemical Processes: Makers of Paints, Oils, etc.	673	215
VII.—Metal Workers (Not Electro Plate or Precious Metals)	8,359	745
VIII.—Workers in Precious Metals and Electro Plate	9	6
IX.—Electrical Apparatus Makers and Fitters (not elsewhere enumerated) and Electricians	315	79
X.—Makers of Watches, Clocks, and Scientific Instruments	18	1
XI.—Workers in Skins and Leather, and Makers of Leather and Leather Substitute Goods (not Boots or Shoes)	745	136
XII.—Textile Workers	216	1,947
XIII.—Makers of Textile Goods and Articles of Dress	232	688
XIV.—Makers of Foods, Drinks and Tobacco	454	157
XV.—Workers in Wood and Furniture	997	69
XVI.—Makers of and Workers in Paper, Printers, Bookbinders, Photographers, etc.	205	498
XVII.—Builders, Bricklayers, Stone and Slate Workers, Contractors	979	5
XVIII.—Painters and Decorators (not Pottery)	343	18
XIX.—Workers in other Materials	187	129
XX.—Workers in Mixed or undefined Materials (not elsewhere enumerated)	71	15
XXI.—Persons employed in Gas, Water, and Electricity Undertakings (not elsewhere enumerated)	98	4
XXII.—Persons employed in Transport and Communication	2,561	105
XXIII.—Commercial, Finance, and Insurance Occupations (excluding clerks)	1,466	1,090
XXIV.—Persons employed in Public Administration and Defence (excluding Professional Men and Typists	598	77
XXV.—Professional Occupations (excluding Clerical Staff)	291	575
XXVI.—Persons employed in Entertainments and Sports	86	37
XXVII.—Persons engaged in Personal Service (including Institutions, Clubs, Hotels, etc.)	386	1,642
XXVIII.—Clerks and Draughtsmen (not Civil Service or Local Authority); Typists	1,027	581
XXIX.—Warehousemen, Storekeepers, and Packers	554	597
XXX.—Stationary Engine Drivers, Dynamo and Motor Attendants	546	...
XXXI.—Other and Undefined Workers	4,028	274
XXXII.—Retired or not gainfully occupied	2,781	19,534

SUMMARY OF THE BIRTH, DEATH, INFANTILE MORTALITY AND MARRIAGE RATES, YEARS 1901 TO 1925.

YEAR	BIRTHS				DEATHS				INFANTILE MORTALITY				MARRIAGES			
	Number	Average 5 Years	Rate	Average 5 Years	Number	Average 5 Years	Rate	Average 5 Years	Infant Deaths Number	Average 5 Years	Rate (per1000 births)	5 Year Average	Number	Average 5 Years	Rate	Average 5 Years
1901	2276	...	35·2	...	1273	...	19·7	...	409	...	179	...	599	...	9·2	...
1902	2376	...	36·1	...	1108	...	16·8	...	350	...	149	..	580	...	8·8	...
1903	2395	2315	35·6	34·5	1261	1239	18·7	18·5	369	369	154	160	580	573	8·6	8·5
1904	2246	...	32·7	...	1361	...	19·8	...	384	...	171	...	585	...	8·5	...
1905	2281	...	32·9	...	1192	...	17·3	...	336	...	147	...	521	...	7·5	...
1906	2248	...	31·9	...	1303	...	18·5	...	353	...	157	...	650	...	9·2	...
1907	2356	...	32·7	...	1167	...	16·2	...	288	...	122	...	584	...	8·1	...
1908	2369	2291	32·6	32·4	1264	1224	17·4	16·9	318	301	134	131	644	621	8·8	8·54
1909	2258	...	30·9	...	1274	...	17·4	...	292	...	129	...	620	..	8·4	...
1910	2225	...	33·8	...	1111	...	15·09	...	252	...	113	...	610	...	8·2	...
1911	2036	...	28·1	...	1157	...	15·9	...	299	...	146	...	621	...	8·5	...
1912	2071	...	28·3	...	1062	...	14·5	...	192	...	92	...	617	...	8·4	...
1913	2204	2086	29·7	28·4	1178	1162	15·9	15·8	289	248	131	118	679	651	9.1	8·8
1914	2225	...	29·7	...	1219	...	16·2	...	249	...	111	...	610	...	8·1	...
1915	1893	...	26·1	...	1196	...	16·5	...	211	...	111	...	731	...	10.1	...
1916	1757	...	25·1	...	1053	...	15·0	...	171	...	96	...	675	...	9·4	...
1917	1532	...	22·3	...	1004	...	14·6	...	141	...	92	...	517	...	7·5	...
1918	1625	1768	21·1	23·7	1276	1065	18·5	14·7	164	168	100	94·4	564	702	7·3	9·3
1919	1654	...	21·1	...	1041	...	13·8	...	159	...	96	...	818	...	10·4	...
1920	2272	...	28·8	...	949	...	11·6	...	205	...	88	...	937	...	11·9	...
1921	2033	...	25·8	...	965	...	12·2	...	197	...	96	...	702	...	8·9	...
1922	1790	...	22·6	...	959	...	12·1	...	131	...	73	...	689	...	8·7	...
1923	1768	1786	22·5	22·7	868	957	10·9	12·1	133	149	72	81·6	680	683	8·4	8·6
1924	1642	...	21·0	...	936	...	11·9	...	139	...	81	...	675	...	8·5	...
1925	1699	...	21·7	...	1059	...	13·5	...	147	...	86	...	668	...	8·5	...

BIRTH RATE, DEATH RATE, AND ANALYSIS OF MORTALITY DURING THE YEAR 1925.

(Provisional figures. The rates for England and Wales have been calculated on a population estimated to the middle of 1925, while those for the towns have been calculated on populations estimated to the middle of 1924. The mortality rate refers to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns.)

	BIRTH-RATE PER 1,000 TOTAL POPULATION.	Annual Death-rate per 1,000 Population.									Rate per 1,000 Births.		Percentage of Total Deaths.		
		All Causes	Enteric Fever.	Smallpox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence.	Diarrhœa and Enteritis (under Two years).	Total Deaths under one year.	Causes of Death certified by Registered Medical Practitioners	Inquest Cases.	Uncertified Causes of Death.
England and Wales - - - -	18·3	12·2	0·01	0·00	0·13	0·03	0·15	0·07	0·32	0·47	8·4	75	92·1	6·9	1·0
105 County Boroughs and Great Towns, including London	18·8	12·2	0·01	0·00	0·17	0·03	0·18	0·09	0·30	0·43	10·8	79	92·1	7·3	0·6
157 Smaller Towns (1921 Adjusted Populations 20,000-50,000).	18·3	11·2	0·01	0·00	0·15	0·02	0·14	0·06	0·31	0·38	7·6	74	93·0	5·9	1·1
London - - - - - - -	18·0	11·7	0·01	0·00	0·08	0·02	0·19	0·11	0·23	0·46	10·6	67	91·1	8·9	0·0
Warrington - - - - -	**21·7**	**13 5**	**0·0**	**0·0**	**0·50**	**0·06**	**0·25**	**0·07**	**0·5**	**0·46**	**3·2**	**86**	**93·3**	**3·8**	**2·8**

BIRTHS.—There were 1,741 births registered of children born in this borough in 1925; 62 births belonged to parents resident outside Warrington, while 20 children were born outside the borough to parents resident within.

Deducting the 62 births from the total registered, 1,741, and adding the 20 births, we have accredited to Warrington 1,699 births (884 males and 815 females).

The birth rate for Warrington per 1,000 living of the population was 21.7 in 1925, compared with 21.0 in 1924, and 18.3 for England and Wales as a whole.

The total number of illegitimate births was 50 (25 males, 25 females). This number shows a decrease from the previous year, when 55 such children were born (page 126).

MARRIAGES.—There were 668 marriages during the year, the rate per 1,000 of population being 8.5. In 1924 there were 675 marriages, giving a similar rate.

DEATHS.—1,094 deaths were registered as occurring in the Borough during 1925. Of these, however, 83 were non-residents. During the same period 48 deaths have been reported to me as having occurred outside the district of persons usually resident in Warrington. Adding these and deducting the non-residents we have a total of 1,059 deaths accredited to Warrington for 1925.

This gives us a death-rate of 13.5 per 1,000 persons living during 1925, compared with 11.6 in 1924, and 10.6 in 1923.

The death rate for England and Wales is 12.2, the 105 county boroughs and great towns 12.2, and for London 11.7.

Our statistics again compare favourably with those of the other Lancashire industrial towns as taken from the Annual Return of the Registrar General (see table page 18).

The causes of death are shown in the following table:—

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN WARRINGTON COUNTY BOROUGH.

1925.

Causes of Death.	TOTALS All ages.	Under 1 year.	1 and under 2	2 and under 5.	5 and under 15	15 and under 25.	25 and under 45.	45 and under 65.	65 and under 75.	75 and upwards.
All causes	1059	147	61	55	52	68	113	288	172	103
Enteric Fever	...	...	...	...	...	...	...	...	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...
Measles	39	6	18	11	4	...	...	...	...	...
Scarlet Fever	5	...	...	3	2	...	...	...	...	...
Whooping Cough	20	5	6	8	1	...	...	..	...	...
Diphtheria	6	1	2	2	1	...	...	...	...	...
Influenza	42	1	...	1	...	...	7	16	10	7
Encephalitis Lethargica ...	4	...	...	...	...	3	...	1	...	...
Meningococcal Meningitis ...	1	...	...	...	1	...	...	...	...	...
Tuberculosis of Respiratory System	99	...	...	...	4	29	37	27	2	...
Other Tuberculous Diseases	18	...	5	3	3	4	3	..	...	...
Cancer, Malignant Disease...	79	...	...	...	...	...	5	40	25	9
Rheumatic Fever	6	...	...	1	1	2	1	1	...	...
Diabetes	5	...	...	...	...	1	1	3	...	...
Cerebral Hæmorrhage, &c....	48	...	1	1	1	1	1	18	14	11
Heart Disease	132	...	...	1	3	6	14	57	31	20
Arterio-sclerosis	34	...	...	...	...	...	1	14	14	5
Bronchitis	91	20	1	2	...	...	...	20	28	20
Pneumonia (all forms) ...	120	26	18	13	8	6	15	22	8	4
Other Respiratory Diseases	15	...	...	...	...	...	2	9	4	...
Ulcer of Stomach or Duodenum	5	...	...	...	...	...	2	3	...	...
Diarrhœa, &c.	20	13	1	2	2	...	1	...	1	...
Appendicitis and Typhlitis...	3	...	...	...	1	1	...	1	...	...
Cirrhosis of Liver	2	...	...	...	...	...	...	1	1	...
Acute and Chronic Nephritis	18	...	...	...	2	1	4	8	3	...
Puerperal Sepsis	4	...	...	...	...	...	4	...	...	...
Other accidents and diseases of Pregnancy and Parturition	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, Premature Birth	49	48	...	...	1	...	...	...	...	...
Suicide	6	...	...	...	...	...	2	4	...	...
Other Deaths from Violence	30	1	1	2	8	5	3	5	2	3
Other Defined Diseases ...	147	26	5	4	9	9	8	36	26	24
Causes ill-defined or unknown	10	...	3	1	...	...	1	2	3	...

Whereas there is a slight increase in the number of deaths, under most headings there is a decrease in those ascribed to

Scarlet fever,
Tuberculosis of the lungs,
Cancer,
Bronchitis,
Epidemic diarrhœa, and
Ante natal causes in infants.

There does appear to be a real and gradual diminution in the death rate from pulmonary tuberculosis.

The chief causes of death during the year were as follows:—

			Proportion of total deaths.
Bronchitis and Pneumonia	211	...	19.9
Heart Disease	132	...	12.4
Tuberculosis	117	...	11.0
Cancer	79	...	7.4
Prematurity and Debility from Birth	49	...	4.6
Cerebral Hæmorrhage	48	...	4.5
Influenza	42	...	3.9
Arterio Sclerosis	34	...	3.2
Diarrhœa &c.	20	...	1.8
Deaths from violence	36	...	3.5
Measles	39	...	3.6
			75.8

Bronchitis and pneumonia account for most deaths, and are most fatal in the case of very young persons and of the elderly.

Heart Disease it will be seen caused no fewer than 132 deaths (12.4% of the total, compared with 13.4% last year), and comes second on the list among the great killing diseases.

Cancer.—There were 79 deaths from this disease in Warrington in 1925, a rate of 1.01 per 1,000 persons living at all ages.

With regard to Cancer, the table on page 16 shows how over the five yearly periods during the past 25 years there has been a steady increase in the death rate.

To some extent this may be due to the fact that with the prolongation of the duration of life that has occurred

during this last quarter of a century more persons have survived to the cancer age.

In addition, diagnosis of the condition is probably somewhat better now than formerly. At the same time, however, there does appear to be a real increase in the number of deaths due to this disease.

Although much research work is being constantly carried on, the most hopeful form of treatment is undoubtedly early recourse to operation. The public must be taught therefore simple facts with regard to the incidence and early symptoms of cancer, and in this direction only at present can we see much hope of reducing the ravages of the disease.

TABLE SHOWING THE NUMBER OF DEATHS IN WARRINGTON FROM CANCER DURING THE PAST 25 YEARS.

Year.	Number of deaths.	Death rate per 1,000 living.	Average death rate for 5 year periods.
1901	34	0.52	
2	36	0.54	
3	52	0.79	0.63
4	41	0.59	
5	51	0.73	
1906	60	0.85	
7	44	0.61	
8	42	0.57	0.68
9	46	0.62	
10	58	0.78	
1911	48	0.66	
12	59	0.81	
13	69	0.93	0.80
14	59	0.79	
15	58	0.81	
1916	62	0.88	
17	69	1.0	
18	68	0.98	0.96
19	71	0.94	
20	81	1.03	
1921	89	1.14	
22	75	0.94	
23	80	1.01	1.03
24	84	1.07	
25	79	1.01	

DEATHS IN WARDS.

CAUSES OF DEATH—	Town Hall.	Whitecross.	Bewsey.	Orford.	St. John's	Fairfield.	Howley.	St. Austin's.	Latchford.	Totals.
Estimated Population ...	4,594	10,359	5,810	10,487	11,093	10,278	7,181	6,718	11,450	
Enteric Fever	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...
Measles	1	4	2	7	11	3	5	3	3	39
Scarlet Fever...	1	1	...	...	1	...	...	...	2	5
Whooping Cough	2	3	1	2	2	4	2	...	4	20
Diphtheria	...	...	...	1	1	2	...	...	3	6
Influenza	4	4	10	4	3	6	3	4	4	42
Encephalitis Lethargica	...	2	...	...	...	...	...	1	1	4
Meningitis	...	...	...	1	...	...	..	...	...	1
T.B. Respiratory System... ...	7	11	9	10	19	9	15	6	13	99
Other T.B. Diseases	...	2	4	...	2	2	3	2	3	18
Cancer	2	12	6	9	9	5	10	8	18	79
Rheumatic Fever	1	...	1	...	1	1	1	1	...	6
Diabetes	.	...	...	1	2	1	...	1	...	5
Cerebral Hæmorrhage	3	3	4	8	7	11	6	1	5	48
Heart Disease	13	13	10	14	9	10	14	16	33	132
Arterio-Sclerosis	2	6	2	1	1	3	3	8	8	34
Bronchitis	6	8	9	12	20	14	6	8	8	91
Pneumonia	5	16	10	13	22	12	12	15	15	120
Other Respiratory Diseases ...	2	2	...	...	1	4	3	3	...	15
Ulcer of Stomach or Duodenum	...	...	...	1	2	1	1	...	...	5
Diarrhœa, &c.	1	2	3	4	5	1	1	1	2	20
Appendicitis, &c.	...	...	...	1	...	1	...	1	...	3
Cirrhosis of Liver	1	...	1	...	...	...	...	...	...	2
Acute and Chronic Nephritis ...	...	1	...	3	2	2	4	1	5	18
Puerperal Sepsis	...	...	1	...	...	2	...	...	1	4
Other Accidents and Diseases of Pregnancy and Parturition..	...	1	...	...	...	...	...	...	...	1
Premature Birth, Congenital Debility and Malformation..	4	4	4	5	10	5	6	5	6	49
Suicide	...	...	1	1	...	2	...	...	2	6
Other Deaths from violence ...	3	2	4	5	4	4	3	2	3	30
Other Defined Diseases	10	14	5	14	28	23	15	17	21	147
Causes ill-defined or unknown ...	1	2	1	1	1	1	1	1	1	10
Totals	69	113	88	118	163	129	114	105	160	1059
Ward Rates	15·0	10·9	15·1	11·2	14·6	12·5	15·8	15·6	13·9	...

UNCERTIFIED DEATHS.

The following causes of death were not certified by a General Practitioner:—

Cause of Death as given by the Registrar.	All ages.	Under 1 year.	1—5.	5—15.	15—25.	25—65.	65 and upwards.
Cerebral Hæmorrhage	2	...	...	...	...	2	...
Convulsions	2	2	...	...	...	...	...
Cancer in face	1	...	...	...	...	...	1
Heart Failure	9	...	...	...	...	6	3
Diphtheria	1	...	1	...	...	...	...
Rupture of Blood Vessel	1	...	1	...	...	...	...
Mitral Disease	1	...	...	...	1	...	...
Nephritis	1	...	...	...	...	1	...
Influenza	2	...	1	...	...	1	...
Angina Pectoris	2	...	...	...	...	1	1
Chronic Bronchitis	2	...	...	...	...	...	2
General Weakness, Senility	1	...	...	...	...	...	1
Prematurity	2	2	...	...	...	...	...
Acute Gastro Enteritis	1	...	...	1	...	...	...
Whooping Cough	1	...	1	...	...	...	...
Inattention at birth	1	1	...	...	...	...	...
	30	5	4	1	1	11	8

The following table compares our main Statistics* with those of other **Lancashire Industrial Towns**:—

	Population.	Birth Rate.	Death Rate.	Infantile Death Rate.
England and Wales ...	...	18.3	12·2	75
Barrow-in-Furness ...	73,490	17·4	10·4	64
Blackburn	127,600	15·3	13·6	92
Bolton	181,100	16·1	13·3	86
Blackpool	77,410	14·8	14·2	88
Bootle	83,130	24·8	11·7	83
Burnley	103,400	16·1	14·0	108
Bury	56,830	14·0	14·0	76
Liverpool	851,800	22·9	13·7	98
Manchester	755,000	19·4	14·1	92
Oldham	147,300	15·3	14·6	100
Preston	123,100	18·1	14·2	129
Rochdale	92,750	12·8	15·1	107
St. Helens	108,700	23·6	11·7	101
Salford	243,700	18 6	13·3	103
Southport	73,650	13.4	12·4	59
WARRINGTON ...	**78,120**	**22·2**	**13·1**	**85**
Wigan	91,180	20·5	13·9	119

* As given in the R. G.'s Return.

INFANTILE MORTALITY.

The total deaths of infants under one year of age in 1925 was 147, which is slightly in excess of the three previous years (see table 11).

The death rate, however, is based on the number of children born during the year, which in this case was 1,699, giving us an infantile mortality rate of 86 deaths per 1,000 children born.

It is now ten years since our infantile death rate was as high as 100 per 1,000.

A comparison with other Lancashire Industrial Towns is given on page 18.

The actual causes of death at the various ages under 12 months are shown in the table, page 20.

Compared with 1924, there is an increase in the number of deaths from measles, whooping cough, bronchitis and pneumonia, whilst there is a diminution in the number due to epidemic diarrhœa and the ante natal causes.

Deaths due to the latter (viz., premature birth, cogenital malformation, atrophy, debility and marasmus) only total 48 in 1925, compared with 70 the previous year.

The number of illegitimate children born in 1925 was 50, of which 9 died, giving a rate of 180 per 1,000, compared with 83.4 per 1,000 for legitimate children.

Deaths under 1 year:—

CAUSES OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
Smallpox	..	...	...	...	...	...	...	...	...	
Chickenpox	...	...	...	...	...	...	...	...	...	
Measles	...	...	...	...	...	...	...	2	4	6
Scarlet Fever	...	...	...	...	...	...	...	...	...	
Whooping Cough ...	...	...	...	...	...	3	1	...	1	5
Diphtheria and Croup	...	.	...	...	...	...	...	1	...	1
Erysipelas	...	...	...	...	...	1	...	...		1
Tuberculous Meningitis	...	...	...	..	...	..	..	...		
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	..	
Other T.B. Diseases ...	...	...	...	...	...	...	...	.	...	
Meningitis (not T.B.)...	...	...	...	...	...	1	...	3	1	5
Convulsions	.	2	...	...	2	1	1	...	...	4
Laryngitis	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	3	2	1	6	1	6	3	4	20
Pneumonia (all forms)	...	...	...	...	...	1	8	8	9	26
Diarrhœa	...	...	1	...	1	2	1	...	1	5
Enteritis	...	...	...	...	...	2	...	2	2	6
Gastritis	1	...	...	1	2	...	...	..	...	2
Syphilis	...	...	...	...	...	...	...	...	...	
Rickets	...	...	...	...	...	...	...	...		
Suffocation (overlying)	...	...	...	.	...	..	...	...		
Injury at birth	...	...	...	...	...	...	...	...		
Atelectasis	1	...	...	...	1	...	...	...		1
Congenital Malformations	...	...	...	...	...	...	1	...		1
Premature Birth ...	16	4	1	1	22	2	...	...		24
Atrophy, Debility, and Marasmus	4	2	1	1	8	5	4	5	1	23
Other Causes	6	3	...	2	11	...	2	2	2	17
	28	14	5	6	53	19	24	26	25	147

Of infants attending the Consultation Centres, the rate was only 35.4 per 1,000, compared with a death rate of 125.5 per 1,000 of those who did not attend.

Out of 1,699 births, 735 children attended the Centres, and of those attending 26 died (the total infant deaths being 147).

CHILDREN AGED 1 TO 5 YEARS.

The following table shows the number of deaths up to 5 years of age for the past 5 years :—

	No. of Births.	—1	1—2	2—3	3—4	4—5	Total
1925.	M.R., 86 1,699	147	61	34	13	8	263
1924.	M.R., 81 1,642	139	38	23	13	10	223
1923.	M.R., 72 1,768	133	54	16	12	6	221
1922.	M.R., 73.1 1,790	131	64	21	9	8	233
1921.	M.R., 96.9 2,033	197	50	19	6	13	285

(M.R., Mortality Rate.)

STILL-BIRTH INVESTIGATIONS.

Altogether 72 still-births occurring in the town during 1925 came to our knowledge, and in the majority of instances visits were paid and investigations were made by the Health Visitors into the cases. These occurred as follows :—

In the practices of doctors	22
,, ,, midwives	28
,, ,, institutions ...	22
	72

Particulars were obtained of 53 cases.

The probable causes ascribed for the death of the fœtus were :—

Causes acting before labour :—

Maceration	7
Prematurity	2
Ante-partum Hæmorrhage ...	9
Illness of the Mother	13
	31

Causes acting during labour :—

Malpresentation	5
Deformity of the Child ...	2
Twin Birth	6
Difficult labour	9
	22

MATERNAL MORTALITY.

During 1925 there were 6 deaths of mothers from accidents and diseases of pregnancy and parturition. The average age at death of the mothers was 36½ years. Three of the cases had and 3 had not ante natal care. The causes of death were:—

Puerperal fever	3
Ruptured pyosalpinx	1
Post-partum hæmorrhage after abortion ...	1
Post-partum hæmorrhage	1
	6

PUERPERAL FEVER.

	1925	1924	1923	1922	1921
No.	12	8	7	5	8
Deaths	3	2	6	1	3
Mort. Rate ...	·03 per 1000 population	·02 per 1000	·07 per 1000	·01 per 1000	·03 per 1000
No. of Births..	1699	1642	1768	1790	2033
Mort. Rate % on No. of Births	= .17%	= .12%	= .33%	= .06%	= .14%

General Provision of Health Services in the Area.

(I.) Hospitals Provided by the Local Authority.

(1) *Tuberculosis.*

Hefferston Grange Sanatorium, Weaverham (11 miles from Warrington and 2 miles from Acton Bridge Station, L.M. & S. Railway), was opened on August 25th, 1921.

The accommodation is as follows:—

Pavilion as Nursing Section for 19 males and 11 females Early Ward, for 26 males Early Ward, for 18 females Shelters for 6 males	Total, Males Females	51 29 80

(2) *Maternity.*

The Maternity Home in Victoria Park, Latchford, has the following accommodation:—

Ground Floor—		
Labour Ward, containing 1 bed Lying-in Ward, ,, 3 beds Lying-in Ward, ,, 3 beds Lying-in Ward, ,, 2 beds	Total: 1 labour bed, 12 lying-in beds, 2 isolation beds.	
First Floor—		
Lying-in Ward, containing 1 bed Lying-in Ward, ,, 3 beds Isolation Ward, ,, 2 beds		

(3) *Children.*

One Block (Wards 5 and 6) at Aikin Street Hospital, containing two wards each with 6 cots for ailing babies.

(4) *Fever.*

Aikin Street Hospital.

Wards.	Number of beds or cots.	Diseases treated.
No. 1 and 2 ...	12 ...	Enteric fever.
No. 3 and 4 ...	20 ...	Diphtheria.
Pavilion	37 ...	Scarlet fever.
No. 7 and 8 ...	50 ...	Measles or whooping cough.
Old Home	4 ...	Puerperal fever.
	123	

(5) *Smallpox.*

Hospital at Sankey, 3½ miles from Warrington.

Small block, two wards—8 beds.
Large block, two wards—14 beds.

Apart from the hospitals provided by the Local Authority there are two Institutions—

(1) The Warrington Infirmary and Dispensary—a hospital supported mainly by voluntary contributions.

(2) Whitecross Hospital—an up-to-date Poor Law Institution.

The following is a summary of the work done during 1925 in connection with these Hospitals:—

1. WARRINGTON INFIRMARY AND DISPENSARY.*

Accommodation	48	beds for males
	27	,, females
	25	,, children
	100	

These are allocated as follows:—

For Medical Cases	14
,, Surgical }	86
,, Special (eye, nose, throat, &c.) }	
	100

Number of Cases dealt with during 1925:—

In-patients	1,847
Out-patients	3,900
Accidents	4,318
Home-patients	734

* For the information *re* the Infirmary I am indebted to the courtesy of Mr. Boot, the Secretary of the Institution, and for that concerning Whitecross Hospital to Mr. Arthur Bottomley, Clerk to the Board of Guardians.

2. WARRINGTON UNION.

Name of Institution—Whitecross Hospital.

Number of beds, 270.

(*a*) Surgical—Male & Female	80 beds + 15 cots	=	95
(*b*) Medical ,,	80 beds + 15 cots	=	95
(*c*) Maternity	10 beds + 10 cots	=	20
(*d*) Special diseases			60
Total ...			270

Number of Warrington patients treated in 1925:—

1,699 patients.

Number and boundaries of districts in the town for medical service:—

As detailed in Report for 1920.

No. 1 District: Dr. Peacock. No. 2 District: Dr. Meikle.

Number of patients visited by Medical Officers in each district:—

No. 1 District:	Home 294	669		75% medical.
	Surgery 375			
No. 2 ,,	Home 611	1,364		
	Surgery 753			

Amount of Out-relief:—

Year ending March,	1921 ...	£17,278
,,	1922 ...	£87,737
,,	1923 ...	£63,805
,,	1924 ...	£44,360
,,	1925 ...	£42,738
,,	1926 ...	£42,424

(II.) Institutional Provision for Unmarried Mothers, Illegitimate Infants and Homeless Children.

The Local Authority have not provided any special institutional accommodation for the above, but all such cases are admitted without distinction, to any of the municipal hospitals, &c., if necessary.

A voluntary organisation in the Town, "The Warrington and District Preventive and Rescue Association," opened a Home at 26, Arpley Street, during the year 1922.

(III.) Ambulance Facilities.

(a) For Infectious Cases.

Local Authority have provided a horse ambulance for the removal of cases of infectious diseases to hospital. A second ambulance is kept in reserve for possible smallpox cases. No charge is made to residents in the borough. A motor ambulance is provided for taking cases to and from the Sanatorium at Weaverham.

(b) Non-infectious and Accident Cases.

A motor ambulance is available, day and night, at the Fire Station (Tel. No. 24), for use in cases of accident or sudden illness in the street or other public place necessitating the removal of the sufferer to his home within the Borough, or to one of the local hospitals.

This ambulance is also available for conveying private cases of a non-infectious character to or from hospitals, railway stations, &c., within a radius of 20 miles, at a charge of 2s. per mile (minimum 5s.).

(IV.) Clinics and Treatment Centres.

The following Clinics and Treatment Centres are provided by the Local Authority:—

I.—*Maternity and Child Welfare.*

Consultations for Infants and Children up to 5 years of age.

Liverpool Road Centre (Sankey Bridges School.)	Mondays, 2.30 p.m.
Bewsey Centre (Adult School, Folly Lane.)	Tuesdays, 2.30 p.m.
Brick Street Centre... (St. George's Mission Hall.)	Wednesdays, 2.30 p.m.
Latchford Centre (Wash Lane Schools.)	Thursdays, 2.30 p.m.

Consultations for Expectant and Nursing Mothers.

(*a*) Centres as above { Mondays, Tuesdays, Wednesdays, Thursdays, } 2 p.m.

(*b*) Health Office. Ante-natal Clinic. Tuesdays, 10 a.m.

(*c*) Maternity Home. Fridays, 2 p.m.

(*d*) By Special Appointment.

II.—*School Clinics.*

Clinic for the treatment of minor ailments occurring in school children is open daily from 9 a.m. to 5 p.m., at the premises of the Health Department.

Arrangements are made for dealing with the following defects in addition:—

Defective vision, Warrington Infirmary, Dr. Fox, Saturday, 11 a.m.

Enlarged tonsils and adenoids, Warrington Infirmary, Dr. Binns, Tuesday and Friday.

Ringworm of scalp, Dr. Fox's Surgery X-ray treatment, Tuesday, 10 a.m.

III.—*Tuberculosis Dispensary*, Garven Place, Sankey Street (at the rear of the premises of the Health Department). Open daily for advice and assistance for tubercular cases. Medical Officer holds consultations on Mondays, Wednesdays and Thursdays at 2 p.m.

IV.—*Venereal Diseases Treatment Centre.*

Warrington Infirmary (Beamont Street Entrance). Free advice and treatment (under conditions of secrecy).

Consultation Hours—

Men—Tuesday, 3.30 p.m. Friday, 6 p.m.
Women—Tuesday, 5 p.m. Friday, 4.30 p.m.
Open daily for Irrigation Cases.

(V.) Public Health Officers of the Local Authority.

A list of the officials of the Health Department is given on page 31.

(VI.) Professional Nursing in the Home.

(*a*) *General.*—The general home nursing in the town is carried out by a branch of the Queen Victoria Jubilee Nursing Association, supported by local contributions. The staff, with headquarters at 13, Arpley Street, Warrington, consists of a matron and 5 nurses, and will attend any general case at the request of a doctor.

This organisation co-operates willingly with the Local Health Authority.

(*b*) *Infectious Diseases.*—Arrangements have been made by the Local Authority for the nurses of the above District Nursing Association to undertake the nursing of certain diseases of mothers and children, viz.:—

Whooping Cough
Measles
or Pneumonia arising from these diseases
Puerperal Fever
Ophthalmia Neonatorum
Epidemic Diarrhœa.

For these services the Local Authority pay an annual sum of £50, plus 1s. per visit made. The visits during 1925 are given on page

(*c*) *Midwives.*—The number of midwives practising in the Borough during 1925 was 20. Of these, 16 hold the certificate of the Central Midwives' Board. No practising midwives are employed or subsidised by the Local Authority.

BACTERIOLOGICAL WORK.

FACILITIES FOR CLINICAL DIAGNOSIS.

Facilities are offered at the Bacteriological Laboratory, Health Department, Sankey Street, for all the usual bacteriological examinations necessary for clinical diagnosis. During the year 1925 the work done in this department is shown as follows:—

Diphtheria (swabs from throats).

For diagnosis of cases in Hospital	133
For diagnosis of cases under treatment of private practitioners	144
For diagnosis of suspected cases under Health Department	37
Before discharge of a case from Hospital	231
Examination of contacts	155

Enteric Fever (Widal blood test).

For diagnosis of cases in Hospital	Nil
For diagnosis of cases under treatment of private practitioners	10

Tuberculosis (specimens of sputum).

For diagnosis of cases under treatment of private practitioners	156
Suspected cases under Health Department	77
,, ,, at Hefferston Sanatorium	118

Ringworm.

For diagnosis by School Medical Officer	26

Miscellaneous.

For diagnosis of cases of Cerebro-Spinal Meningitis...					1
,,	,,	cases of Anthrax	...	...	Nil
,,	,,	other cases ...	...	...	2
,,	,,	Venereal Diseases	...	...	91
			Total ...	...	1181

The special blood examinations (the Wasserman Test) are performed at Manchester P.H. Laboratory for any case in the Warrington area requiring it.

All the bacteriological examinations are free of charge both to practitioners and patients so far as Warrington residents are concerned.

Chemical Work.

Chemical examinations of milk, water, and other food stuffs are made by Mr. F. Ruddock, the Borough Analyst, and referred to in other parts of this Report.

LOCAL ACTS, SPECIAL LOCAL ORDERS, OR GENERAL ADOPTIVE ACTS IN FORCE IN THE DISTRICT.

A list of the special acts and regulations in force in Warrington was given in the 1921 Report, and since then we have to add certain sections of the Public Health Act, 1925, viz.:—

Part II.: Sections 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32 and 35.

Part III.: All the Sections (36-44).

Part IV.: All the Sections (45-50).

Part V.: Sections 51, 52, 53, 54 and 55.

There are many useful clauses dealing with Infectious Diseases, Cleansing of Children and Dwelling-houses, Prohibition of Tents and Vans, Smoke Nuisance, Human Food, Maternity Homes, &c.

Other Services Related to and Working with the Local Authority.

The relationship of the officials of the Health Department with those of the Poor Law, Ministry of Pensions, and Health Insurance is of the most cordial character, and ready co-operation is always accorded us in our work.

We are greatly assisted, too, by such organisations as the Guild of Social Service, with its Mothers' and Babies' Welcome Committee, by the United Services Fund, and by the local branch of the British Red Cross Emergency Fund. Through these bodies we are able to provide convalescent treatment for many Warringtonians every year. In addition, there is a fund, the Joseph Kitchingman Charity, of about £150 per annum, for this purpose, administered through representatives of the Local Authority.

COST OF HEALTH SERVICES YEAR ENDING MARCH 31st, 1926.

	Expenditure.	Income.	Net Cost.	Rate in £.
	£ s. d.	£ s. d.	£ s. d.	d.
Prevention of Disease ...	4931 15 7	107 4 4	4824 11 3	3.07
Notification of Disease...	214 9 3	—	214 9 3	.14
Manchester Port Sanitary Authority	266 14 11	—	266 14 11	.17
Sanatorium	11426 10 0	9634 19 4	1791 10 8	1.14
Dispensary	939 8 3	119 7 6	820 0 9	.52
Venereal Diseases	874 13 11	821 15 10	52 18 1	.03
Aikin Street Hospital ...	7358 5 7	1058 19 2	6299 6 5	4.01
Smallpox Hospital	764 16 7	837 1 0	72 4 5	.05
Maternity and Child Welfare	5089 3 10	2920 18 8	Credit. 2168 5 2	Credit. 1.38
Midwives Act	237 16 2	—	237 16 2	.15
Food and Drugs Acts	228 12 4	—	228 12 4	.15
Fertilizers and Feeding Stuffs Act	4 14 6	—	4 14 6	—
Diseases of Animals Acts	86 19 8	13 9 3	73 10 5	.05
Blind Persons Act	387 7 6	—	387 7 6	.25
	32,811 8 1	15,513 15 1	17,297 13 0	11.01
Medical Services re School Children	3210 16 9	84 17 6	3125 19 3	2d.

PUBLIC HEALTH STAFF.

Office held.	Name.	Qualifications.	Other Offices held.
Medical Officer of Health	G. W. N. Joseph...	M.D., B.Ch., D.P.H.	School Medical Officer, Tuberculosis Officer, Maternity and Child Welfare Officer, Medical Superintendent of Corporation Hospitals.
Asst. Med. Off. of Health	C. A. Paulusz ...	L.R.C.P., L.R.C.S. (Edin.), L.R.F.P. & S. (Glas.), L.M.R.C.P.I., D.P.H.	Asst. School M.O.
,, ,, ,,	Helen Campbell ...	M.B., Ch.B., D.P.H.	Asst. Mat. & Child Welfare Officer.
,, ,, ,,	J. A. Delmege, O.B.E.	M.R.C.S., L.R.C.P., D.P.H.	Asst. Tuberculosis Officer.
Throat and Nose Surgeon	Geo. Binns ...	M.B., Ch.B. ...	Part time.
X-Ray and Eye Surgeon	Ed. Fox ...	F.R.C.S. ...	
Med. Officer to the V.D. Clinic	E. T. Burke, D.S.O.	M.B., Ch.B. ...	
School Dental Officer	W. Hutchison ...	L.D.S. ...	—
Sanitary Inspector	W. T. Flood (chief)	Cert. of R. San. Inst.	Inspector of Food and Drugs. Inspector of Contagious Diseases of Animals. Inspector of Canal Boats. Inspector of Shops Acts. Inspector of Poisons and Pharmacy Acts.
,, ,,	John Stevens ...	R.S.I. Cert., Meat Inspector's Cert.	Inspector under Shops Acts. Housing Inspector.
,, ,,	James Snailham ...	R.S.I. Cert., Meat Inspector's Cert.	Inspector under Factory & Workshops Act. Special tuberculosis work.
,, ,,	John C. Cook ...	R.S.I. Cert., Meat Inspector's Cert.	Infectious disease work.
,, ,,	Ernest Barton ...	R.S.I. Cert. ...	General district work.
,, ,,	Wm. H. Molyneux	R.S.I. Cert. ...	General district work.
Clerks ...	Wm. Lawless ...	—	Chief Clerk.
,, ...	Miss B. White ...	—	Typist.
,, ...	Sidney Makin ...	—	Accounts & Stores Clerk.
,, ...	Wm. Knowles ...	—	Junior Clerk.
,, ...	Harold Ratcliffe ...	—	Junior Clerk.
Matron of Isolation Hospital	Miss Hannah Sumner	General Nursing Certificate	Superintendent of Nurses.
Inspector of Midwives	Miss Knott ...	C.M.B. Cert., R.S.I. Cert.	Also Health Visitor.
Health Visitors ...	Mrs. Washington...	C.M.B. Cert., R.S.I. Cert.	
,, ,, ...	Miss Barlow ...	C.M.B. Cert., R.S.I. Cert.	
,, ,, ...	Miss Cawley ...	General Training, C.M.B. & Health Visitors' Cert.	
,, ,, ...	Miss Hume ...	General Training and C.M.B.	
Tuberculosis Nurse	Miss Pettie ...	R.S.I. Cert. ...	
School Nurses ...	Miss Brown ...	General Cert. ...	
,, ,, ...	Miss Mason ...	General Cert., C.M.B. Cert.	
,, ,, ...	Miss Griffith ...	General Cert., Hygiene Cert. (Queen's)	
,, ,, ...	Miss Ritson ...	General Cert. ...	

Sanitary Circumstances of the District.

WATER SUPPLY.

There is a constant unrestricted supply of good water for domestic purposes for the inhabitants of the town. Warrington is somewhat unique in having two separate systems of supply, viz., a Domestic-Trade supply from wells, and a purely Trade Supply from a storage reservoir, with distributing systems separate to each.

(1.) *Domestic Trade Supply*—obtained from deep wells and adits constructed in the New Red Sandstone at Winwick and Delph, situated about 3 miles north of the centre of the Borough. The analyses consistently show this to be a first-class water for domestic use.

(2) *Trade Supply*—from a Reservoir at Appleton (3 miles south of the centre of the town), fed by brooks bringing water from farm lands. This water, having been found subject to contamination, is only used for trade purposes.

Sooner or later a larger and more permanent water supply than the one derived from Winwick will be essential for the Town, and at present the South-West Lancashire Water Committee have the whole matter under consideration.

Supervision of the Purity of the Water Supply.—The purity of our present supply receives constant attention, and frequent samples are regularly submitted for bacteriological examination to Professor Topley in Manchester, and for chemical analysis to Mr. Ruddock, the Borough Analyst.

The following are the results during 1925:—

(*a*) Chemical;
(*b*) Bacteriolgical.

(*a*) RESULTS ON CHEMICAL ANALYSIS:—

Date, 1925.	Where taken.	Free Ammonia.	Albuminoid Ammonia.	Oxygen absorbed 4 hours.	Nitrogen as Nitrates.	Chlorine.	Solids Total.	Solids Fixed.
March 16	No. 1	.0005	.0012	Nil	.60	2.2	36.0	25.0
April 21	„ 2	.0014	.005	Nil	.50	2.1	42.0	29.0
May 28	„ 3	.0009	.001	...	.50	2.2	42.0	28.0
June 22	„ 5	Nil	.0025	...	.60	2.3	38.0	27.0
October 9	„ 6	.0005	.0015	...	.60	2.3	39.0	26.0
Nov. 20	„ 7	.0005	.0015	...	.60	2.2	36.0	26.0
Dce. 23	„ 8	.0008	.0037	.004	.55	2.3	40.0	29.0

(*b*) SAMPLES OF WATER (Domestic Supply for the Borough.

Submitted to Professor Topley, Public Health Laboratory, Manchester, for (*b*) Bacterioiogical Examination during the year 1925.

Date.	Where taken.	Quantitative Analysis :— Aerobic Micro-organisms growing in 3 days nutrient gelatine at 20° C to 21° C.				Qualitative Analysis.
		Non-liquifying Bacteria.		Liquifying Bacteria.		Bacteria associated with Sewage and Faecal Pollution.
		No. of Colonies in 1 gramme.	No. of kinds of Bacteria clearly recognisable.	No. of Colonies in 1 gramme.	No. of kinds of Bacteria clearly recognisable.	
1925.						
Jan. 6 ...	7 8, Mersey Street ...	59	2	11	4	Bacillus Coli Communis found in 10c.c., not found in 1c.c.
,, 26 ...	Bank House	41	—	10	—	Bacillus Coli Communis not found in 100c.c.
March 11 ...	Garven House ...	123	3	4	3	ditto.
,, 30 ...	7 Clifton Street ...	50	2	2	1	Found in 100c.c.
April 25 ...	31 Longford Street ...	7	1	1	1	Not found in 100c.c.
May 22 ...	333 Liverpool Road...	14	2	5	4	ditto.
July 16 ...	Arpley Street School	247	3	19	1	ditto.
,, 29 ...	Maternity Home ...	47	3	6	4	ditto.
Aug. 27 ...	Garven House ...	381	3	11	3	ditto.
Oct. 20 ...	2 Antrobus Street ...	37	—	3	—	ditto.
Nov. 16 ...	4 Suez Street ...	64	—	10	—	ditto.
Dec. 11 ...	27 Dudley Street ...	11	—	2	—	ditto.
,, 29 ...	Bank House	20	—	2	—	ditto.

RIVERS AND STREAMS.

There is great pollution of the River and Streams running through the town.

The River Mersey is highly polluted when it reaches Warrington, the water shed embracing as it does so many of the Lancashire industrial towns, which, though not turning crude sewage into the river, all add their quota more or less to the general pollution. During its passage through Warrington the crude contents of the sewers are emptied into it.

Sankey Brook, which forms the western boundary of the Borough, also is highly polluted when it reaches the town. Much of this is due to the rainfall higher up its course washing chemical and other refuse into the brook from waste heaps. It cannot be said that the contribution of Warrington to the contamination of this stream is other than trifling compared with the vast volume of organic and chemical matter poured into it before its gets to the town.

Padgate Brook, on the eastern side of the Borough, is only polluted by the admission of sewage from a few houses outside the Borough, but it is in quite good condition when it reaches the Mersey above Howley Weir.

The River Inspector of the Borough Surveyor's Department, during the course of his work, notices and reports any special industrial pollution, and steps are taken to draw the attention of the firms concerned to the matter.

In common with many other rivers passing through industrial areas, the Mersey is at times little better than an open sewer. National steps should be taken to improve this condition of our inland streams.

DRAINAGE AND SEWERAGE.

The whole of the area of Warrington (at present = 3,145 acres) is provided with sewerage arrangements.

There are very few water closets in the town, the excreta being dealt with on a dry conservancy system—the pail system—but the sewers receive a large volume of water from the manufacturing industries of the town.

The main outfalls are of egg-shaped brick sewers varying from 4ft. by 3ft. and 3ft. 6in. by 2ft. 6in. to 3ft. by 2ft.; the secondary sewers are of circular stoneware pipes varying in size from 30in. to 9in.

The whole is on the gravitating system except the Latchford, Padgate and Orford Districts of the town, from which the sewage gravitates to Shone's Pneumatic Ejectors and is lifted by them to the main outfall sewers. This has enabled the sewers in the three districts to be laid with gradients ensuring good velocities in the flow of sewage.

All the sewers gravitate to and empty into the tidal portion of the River Mersey, and into Sankey Brook, its tributary. There are seven outfalls into the River discharging in various parts of the town.

The sewers are provided with storm overflows discharging also into the tidal portion of the River.

Particular attention is paid to the flushing of the sewers to prevent any deposit that might occur in certain low-lying districts of the town.

CLOSET ACCOMMODATION.

Warrington is a pail closet town.

According to the latest return there are now:—

(1.) Water Closets in Dwelling-houses...	...	1,900
Schools ...	...	247
Factories & Workshops		1,093
Offices, Shops, &c.	...	251
Picture Palaces	...	24
Theatres ...	...	18
Public Institutions	...	178
Railway Stations	...	23
Public Conveniences	...	25
Total ...	...	3,759

(2.) Pail Closets—approx., 14,569.

It has not been possible yet to make any progress in the matter of conversion to the water carriage system, but the question has received attention from time to time by the Health Committee.

In 1925 the Medical Officer of Health was instructed to furnish a report on the conservancy system in the Borough (copy printed in appendix, page 129).

SCAVENGING.

The sweeping and cleansing of streets is supervised by the Borough Surveyor and his Department. During the hot summer months special watering and cleansing of various courts and alleys is undertaken by arrangement with the Health Department.

The arrangements for the removal and disposal of household refuse and the cleansing of the pail closets are not under the control of the Health Committee and the Health Department, but are supervised by the Sanitary Works Committee and the Cleansing Superintendent and his Staff.

House Refuse.

Removed once per week; the major portion of this refuse is now carted to tip, the remainder being disposed of by Destructor.

The whole of the Borough is provided with portable steel ash bins, in most cases fitted with covers.

These removals are carried out by mechanical transport.

The number of portable steel ashbins in the Borough is approximately 16,300.

Ashpits.

Only one dry ashpit in the Borough.

Excreta.

The pail closet system is in operation in Warrington, pails to the number of 14,112 being removed once a week.

Owing to the congested sanitary accommodation in many parts of the Borough, the Sanitary Works Committee gave instructions to the Cleansing Superintendent to have these removed twice weekly where necessary.

These removals are carried out by electric motors, capable of carrying 72 pails per load, the pails being fitted with an improved type of cover adapted purposely for sealing when loaded.

These vehicles are a distinct improvement over the iron shod horse vans for this work, five motors being employed as against sixteen horses.

The pails are thoroughly washed by machinery in the Intercepting Depots, and disinfected with 25% solution of carbolic fluid before being replaced in the closets.

All pail-places are limewashed and cleansed frequently throughout the year.

Also special attention is given to all ashplaces where the pails come in direct contact, these are limewashed once per year.

In all suspected cases of Enteric Fever notified to this Department, the pails are isolated and dealt with separately, and the contents destroyed by incineratoin in the destructor.

Public Conveniences.

Two new Public Lavatories and Conveniences have been erected in the Borough, also improved accommodation at the Barbauld Street and Queens Gardens conveniences.

All the conveniences in the Borough are cleansed daily and periodically disinfected.

SANITARY INSPECTION OF THE DISTRICT.

This part of the Report includes, at the request of the Ministry of Health, a considerable portion of the annual statement prepared by our Chief Inspector, Mr. W. T. Flood.

Systematic inspection of all areas of the town has been carried out during the year.

Altogether 9,273 visits have been paid by the inspectors, which, added to those paid to cases of infectious disease and tuberculosis, make up a total of 22,021 during the year as follows:—

VISITS PAID BY INSPECTORS.

Visits to deal with property, nuisances, &c.	9,273
,, ,, cases of infectious disease	8,792
,, ,, ,, tuberculosis ...	3,956
Total ...	22,021

The following table shows the number of **nuisances** found and dealt with during 1925:—

A SUMMARY OF NUISANCES DEALT WITH DURING THE YEAR.

Pools of stagnant water	1
Insufficiently ventilated rooms	56
Dirty dwellings	10
Defective floors	69
,, walls and ceilings	147
Dirty ,, ,, ...	2
Defective roofs	303
,, spouting	246
,, slopstones and pipes	38
Blocked drains	375
Defective drains	15
,, pavements in yards and passages ...	14
,, chimneys and ranges	87
Damp walls of dwellings	32
Defective window frames	34
,, pail closets and ashplaces	185
,, or absent ashplace doors	185
,, ,, ,, pail place doors	185
,, ,, ,, closet doors	185
,, water closets	26
Accumulation of manure	20
,, ,, refuse	7
Dangerous yard and closet walls	41
Dirty walls, passages, yards and closets ...	7
Miscellaneous	25
Insufficient water supply	10
Defective doors	36
Total Nuisances	1786

Preliminary Notices sent calling attention to Nuisances	402	covering	1411	Nuis.
Legal Notices served to abate nuisances ...	654	,,	1255	,,

Out of the total number of nuisances found, 1,409, or 78.9%, were abated during the year under review, the remainder being carried forward into 1926 for suitable measures to be adopted. 377 nuisances carried forward.

In addition to the inspection of the district for nuisances, &c., there is the supervision of **Premises and Occupations** controlled by bye-laws or regulations. The following is a summary of the work in this respect:—

	Number of Premises.	Number of Inspections.
Workshops and Workplaces	208	754
Factories (Sanitary Accommodation)	223	149
Bakehouses	53	232
Slaughter Houses	10	800
Milkshops	73	281
Cowsheds	12	50
Ice Cream (premises where manufactured)	89	126
Tripe Boilers' Premises	3	125
Gut Scrapers	1	38
Places of Entertainment	10	81
Canal Boats	33	33
Houses Let in Lodgings	18	42
Common Lodging Houses	30	1096
Premises where Potted Meat, Sausages, &c., are prepared	79	252
Number of Premises Disinfected after cases of Infectious Disease	725	—
Number of Articles Disinfected by Steam Disinfector	4348	—
Smoke Observations	—	159

The defects found at the inspections given in the preceding table were:—

FACTORIES AND WORKSHOPS.

	Factories and Workshops.	Workshop bakehouses.	Factory bakehouses.	Total
Defective w.c.'s	2	4	—	6
Dirty w.c.'s	5	—	2	7
Defective waste pipe	—	1	—	1
Intervening space not ventilated	1	—	—	1
Dirty Walls and Ceilings	—	1	1	2
Blocked Drains	5	1	—	6
Defective Pail Closets	2	1	—	3
Defective Drains	1	—	—	1
Accumulation of Refuse	—	—	2	2
	16	8	5	29

COMMON LODGING HOUSES.

	1925.
Defective House Roofs and Walls	8
Blocked Drains	1
Dirty Walls and Ceilings	4
Defective Floors	2
,, S.S. Pipe	2
Insufficiently Ventilated Rooms	1
Defective w.c.'s	5
	23

SCHOOLS.

Defective Drains	1
,, Waste Pipe	1
	2

ENTERTAINMENT HOUSES.

Defective w.c.	1
Blocked Drain	1
	2

COWSHEDS.

Dirty Walls and Ceilings	1
Accumulation of Manure	1
	2

TRIPE BOILERS' PREMISES.

Defective Drains	2

The next table shows the annual return asked for by the Secretary of State:—

FACTORIES, WORKSHOPS AND WORKPLACES.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars.	Number of defects — Found.	Remedied.	Referred to H M. Inspector.	Number of offences in respect to which Prosecutions were instituted
(1)	(2)	(3)	(4)	(5)
Nuisances under the Public Health Acts:—*				
Premises	Number of Inspections.	Written Notices.	Occupiers prosecuted.	
(1)	(2)	(3)	(4)	
Factories (Including Factory Laundries)	149	9	—	
Workshops (Including Workshop Laundries)	754	16	—	
Workplaces (Other than Outworkers' premises)	1306	4	—	
Total	2209	29	—	
Want of Cleanliness	6	6	—	—
Want of ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	7	7	—	—
Other nuisances	1	1	—	—
Sanitary accommodation — insufficient	—	—	—	—
Sanitary accommodation — unsuitable or defective	21	19	—	—
Sanitary accommodation — not separate for sexes	2	2	—	—
Offences under the Factory and Workshop Acts:—				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	—
Other offences (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.)	2	2	—	—
Total	39	37	—	—

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

SMOKE OBSERVATIONS.

During last year 159 observations were made of chimneys with a view to the detection of the emission of black smoke. In 1 case the period allowed in the byelaws was exceeded.

When an offence has been committed the works are at once visited by the inspectors who have taken the observation and the cause ascertained.

Particulars of the case are then reported to the Health Committee, and action taken in accordance with the instructions of the Committee.

In the above case a statutory notice was served, and as no offence has been committed within six months no further action could be taken.

Consideration was given during the year to the question of joint action with neighbouring authorities against the smoke nuisance. The Manchester Regional Joint Smoke Abatement Committee formed at the instance of the Ministry of Health recommended:—

1. The adoption of the patrol system of inspection.
2. A standard definition of black smoke.
3. A time concession, and
4. The formation of a United District.

The Health Committee decided that whilst favourable to the first three recommendations it was not desirable that Warrington should be included in the area of the United District.

CANAL BOATS.

33 canal boats visited at Warrington were berthed on the River Mersey, either at Bank Quay, Bishop's Wharf, or Howley Quay. They were found in a satisfactory condition.

Two important changes have recently been made in the Acts under which the inspections of canal boats are made. They are as follows:—

(1) The Canal Boats Order of 1922 changed the definition of the term canal boat as set out in Section 14 of the Canal Boats Act of 1877. This section exempted from the requirements of the Act all boats registered under the Merchant Shipping Act, although trading on a canal and carrying out the same kind of work as a canal boat. The Order made in 1922 provides that all boats, however propelled, or whether registered under the Merchant Shipping Act or not, which are used for the conveyance of goods on a canal or inland waterway, are now to be dealt with as canal boats.

(2) The Canal Boats Amendment Regulations of 1925 have made the owner of the boat responsible for the habitable condition of the same, whereas under the Local Government Board Regulations and the Canal Boats Act, 1877, the master of the boat was responsible.

Since motor transport has come to the fore, the carrying of goods by boat on inland waterways has considerably decreased.

PLACES OF ENTERTAINMENT.

There are eight Picture Houses and two other places of entertainment open each evening for the benefit of the public. In addition we have two other large halls which are used fairly regularly either for concerts or public meetings. These premises are visited with a view to ascertaining that the means provided for ventilation during performances are made use of, and also to see that during the daytime the doors and windows are thrown open to admit both fresh air and sunlight. The cleansing of the premises and the removal of refuse have been fairly well carried out, while the drains and sanitary conveniences have been kept clean and in good order.

Some points with regard to our supervision of these places of entertainment will be found in the Reports for 1919 and 1920.

REFERENCES TO OTHER DEPARTMENTS.

1.	To Borough Surveyor (Blocked drains, defective pavements in streets and back passages, &c.) ...	75
2.	To Water Engineer (Defective fittings resulting in waste of water, &c.)	14
3.	To Cleansing Superintendent (Absence of ash-bins and pails, defective ash-bins or leaking pails, non-removal of house refuse, &c.)	114

SCHOOLS.

The Medical Officer of Health is also School Medical Officer, and a special report on School Hygiene has been issued separately.

The Medical Officer and his staff deal with the sanitary condition of the Schools and with all cases of Infectious Disease arising in them.

A large amount of work is done each year in examining children for these diseases and in advising as to the necessary exclusion of cases and of contacts from the scholars.

The number of cases of notifiable infectious disease occurring among school children in 1925 is shown as follows:

Scarlet Fever	162
Diphtheria	33
Enteric Fever	1
Pulmonary Tuberculosis	19
Other Tubercular Diseases	37
Total	252

See pages 17 to 19 Annual Report on School Hygiene, 1925.

I. General Housing Conditions of the District.

The majority of the buildings in Warrington are of brickwork, and the houses average from 30 to 40 to the gross acre. In the older and central portion, comprising chiefly Town Hall, Howley and St. John's Wards, the streets are narrow, but the back courts and alleys containing insanitary dwellings are gradually disappearing through the efforts of the Health Committee and various street widening operations.

Shops and offices are largely supplanting residences in the middle of the town, and many of the people employed within the Borough now live on the outskirts at Stockton Heath, Latchford or Grappenhall, to the South, in the Runcorn Rural District, or at Padgate, to the East, and Sankey, to the West, in the Warrington Rural District.

Work and wages have generally been good in Warrington, and rents have always been low (3s. 6d. to 10s. per week, even at present).

1. No. of Houses.

The number of houses in the Borough is approximately 15,434.

Returns showing number of dwelling-houses and lock-up shops in the Borough:—

Ward.	Occupied. Houses.	Lock-up.
Town Hall	971	153
Whitecross	1,893	16
Bewsey	1,002	10
Orford	2,136	12
St. John's	2,075	33
Fairfield	2,212	16
Howley	1,302	58
St. Austin's	1,313	90
Latchford	2,530	33
	15,434	421

Practically speaking, all the dwelling-houses may be considered houses for the working classes, except about 1,500.

The number of rooms in the 15,434 dwelling-houses is approximately as follows:—

2 Roomed Houses	250
4, 5 or 6 Roomed Houses	13,607
More than 6 Rooms...	1,577
	15,434

The next table shows the distribution of the population according to the dwellings in the town at the time of the 1921 Census:—

Table showing Acreage, Population, Private Families, and Dwellings. (1921 Census Return):—

	Area in Statute Acres (Land and Inland Water)	Total Population.				Private Families and Dwellings				
		Persons	Males	Females	Persons per Acre.	Private Families	Population in Private Families	Structurally Separate Dwellings Occupied	Rooms Occupied	Rooms per Person
Warrington County Borough	3,057	76,811	38,094	38,717	25·1	15,484	74,840	14,806	67,805	0·91

Tables showing Buildings, Dwellings, Rooms and Families. (1921 Census Return):—

	Dwellings Occupied by Non-private Families	Structurally Separate Dwellings Occupied by Private Families or Vacant.					Total Rooms
		1—3 Rooms	4—5 Rooms	6—8 Rooms	9 or More Rooms	Total Dwellings	
I. Undivided Private Houses ...	24	1,469	10,172	2,097	101	13,839	63,349
II. Structurally Divided Private Houses	...	1	1	...	...	2	7
III. Blocks of Flats, Tenements &c.	...	...	...	...	...	...	...
IV. Shops	...	188	618	228	26	1,060	5,042
V. Others	16	11	25	13	4	53	292
Total ...	40	1,669	10,816	2,338	131	14,954	68,690
Vacant on Census Night		8	80	53	7	148	801
Dwellings Occupied by 1 Private Family ...		1,369	10,294	2,132	103	14,168	64,581
,, ,, ,, 2 ,, Families ...		22	434	135	12	603	3,062
,, ,, ,, 3 or More Private Families		...	8	18	9	35	246
Total Dwellings Occupied by Private Families		1,661	10,736	2,285	124	14,806	67,889
Percentage of Total Dwellings Occupied by Private Families		11	73	15	1	100	...
Total Private Families Therein		1,683	11,186	2,460	155	15,484	...

2 (a). Extent of Shortage of Houses.

In a report to the Housing Committee in 1919 the requirements of the population for the succeeding three years were estimated to be about 1,000 houses.

The following were the conditions on the 31st December, 1925, according to the register kept at the Health Department of application for new houses:—

Since registration was first commenced the total number of applications received		2577
Of this number there were		
living in overcrowded houses		1454
living in not overcrowded houses		884
living out of the Borough		239
The Housing Committee has interviewed and granted tenancy	283	
(28 original tenants having given up their tenancy)		425
No. of applicants granted lodgings in Corporation Houses thus relieving overcrowding	142	
Of the total applicants, the number who have either themselves obtained a house or other satisfactory accommodation or left the town		463

There are therefore still remaining

in overcrowded houses...	742	
not ,, ,, ...	766	1689
living out of Borough	181	

Of those still on the waiting list, a large number of cases have been considered by the Committee, but for various reasons the application deferred. In fact, the majority of these applicants living in overcrowded houses are unable to pay the rent of the Municipal houses, and when granted tenancy are compelled to sub-let some of the rooms. It is this group of "overcrowded" persons who alone are being dealt with by the Committee at present.

In addition to the 425 applicants dealt with by the Committee, there were 29 applicants for Corporation houses who had arranged with tenants of privately owned houses for a transfer. Whilst these have been beneficial in regard to health, they have not been included in the report because the persons were *not* on our list of applicants, as they were tenants of houses.

(b) Measures taken or contemplated to meet any shortage.

The Local Authority decided in 1919 to build 1,000 houses.

SITES FOR MUNICIPAL HOUSING.

Up to the end of 1925, the sites that had been actually purchased were :—

Manchester Road District	{	Cornwall Street ...	.4138 acre.
		Manchester Road	4.1 acres.
		Reynolds Street ...	8.874 acres.
Latchford District ...		Park Avenue ...	4.833 acres.
Fairfield District ...		Salisbury Street ...	5 acres.

Number of New Houses Built.

HOUSES ERECTED IN WARRINGTON DURING 1925.

Total number erected 329
made up as follows :—

PRIVATE ENTERPRISE.

Ward.	Erected with Subsidy.	Erected without Subsidy.	Total.
Town Hall	—	1	1
Whitecross	19	—	19
Bewsey	—	—	—
St. John's	—	—	—
Orford	173	—	173
Howley	—	—	—
Fairfield	39	—	39
St. Austin's... ...	—	—	—
Latchford	33	2	35
		Total ...	267

BUILT BY THE CORPORATION.

Cambria Place	3	
Reynolds Street	59	
	62	

In addition, plans have been passed for 309 houses. A number of these were in course of erection at the end of the year. These houses are built "For Sale" only, but many applicants on the waiting list for houses are purchasing and thus taking advantage of the provisions of the Small Dwellings Acquisition Act. There is also a large number of houses being built in the Rural Districts surrounding the Borough, and this also is relieving the position.

The following table gives the number of New Houses certified as fit for occupation during the last 15 years:—

Year.	By private enterprise.	By Corporation.
1911	225	—
1912	95	—
1913	87	—
1914	58	—
1915	9	—
1916	3	—
1917	0	—
1918	0	—
1919	0	—
1920	1	50
1921	1	52
1922	1	46
1923	13	39
1924	66	0
1925	267	62
Total	826	249

The total number of houses built during the years 1911 to 1925 was 1,075, or an average of 71.7 per year.

The average annual rate of absorption is estimated at 180 houses per annum. Thus the normal requirements for this period would be 2,700 houses. This leaves a deficit of 1,625 houses.

The number of houses built during 1925 is, for the first time since 1911, in excess of the natural absorption. If this present rate of building is maintained it will take 11 years to overcome the natural shortage of houses.

There are indications, however, that during next year the number of houses built will exceed the 1925 total.

The number of persons who have taken advantage of the Small Dwellings Acquisition Act and purchased their own house is 386.

The total amount of money advanced by the Corporation for this purpose up to the end of December was £110,334.

Types of Houses.

The dwellings erected comprise:—

1. *Wooden Huts.*

(*a*) 10 80-ft. Huts, each divided into two separate dwellings, thus accommodating 20 families. The accommodation consists of two bedrooms, kitchen, scullery (fitted with a copper for washing and a well sink), larder, coal-store, and w.c. The initial rent fixed was 5s. 6d. per week, plus rates, amounting to a further 3s. 7d. per week, or a total of 9s. 1d.

(*b*) 10 60-ft. Huts (20 dwellings), with accommodation similar to the above, the only difference being in the size of the bedrooms.

These were first let at a rent of 4s. 6d. per week, with rates 4s. 5d. per week—total 8s. 11d. per week.

2. *Concrete Houses* (on the Dorman Long system).

Six in number were completed during the year 1920 at a cost of approximately £850 each. The accommodation consists of sitting-room, kitchen, scullery, larder, coal-place, and w.c. on ground floor, and three bedrooms and a bathroom on the first floor. The weekly rent is 9s., with 5s. 11d. rates, making a total of 14s. 11d. per week.

3. *Brick Houses.*

Manchester Road Site.

56 brick houses are tenanted. 39 are "Type B" parlour houses, with sitting-room, kitchen, scullery, larder, coal place, and w.c. on ground floor, and three bedrooms and bathroom on first floor. The rent is 9s. 6d. per week, which, with 6s. 3d. rates, makes a total of 15s. 9d. per week.

17 houses "Type A" with kitchen, scullery, larder, coal-place, and w.c. on ground floor, and three bedrooms and bathroom on first floor. The rent is 8s. per week, which, with 5s. 3d. rates, makes a total of 13s. 3d. per week.

Park Avenue Site.

73 "Type A" houses are tenanted. 19 are "end houses," and are let at an inclusive rent of 13s. 3d. per week, 54 "inner houses" are let at inclusive rent of 12s. 5d. per week.

Reynolds Street Site.

35 "Type A" houses are tenanted and are let at an inclusive rent of 12s. 5d. per week.

12 "Type A3" houses are tenanted at an inclusive rent of 14s. 11d. per week.

14 "Type B" houses are tenanted at an inclusive rent of 15s. 9d. per week.

The remainder of the houses on this site are expected to be completed and tenanted early in 1926.

Salisbury Street Site.

Building on this site was not commenced at the end of 1925.

Summarised therefore the number of houses already built by the Corporation is:—

20	wooden huts	...	Bank Quay.
20	,, ,,	...	Latchford.
6	concrete houses.		
56	brick houses	...	Manchester Road.
73	,, ,,	...	Park Avenue.
12	,, ,,	...	Reynolds Street.
59*	,, ,,	...	Reynolds Street and Broadbent Avenue.
3	,, ,,	...	Cambria Place.
249			

* These houses are part of the scheme for 108 houses on this site.

II. Overcrowding.

(1) Extent.

There is a considerable amount of overcrowding in the town.

A survey was made in the early part of 1919, when it was found that in 202 houses there were more than 2 persons per room.

In the succeeding years this overcrowding increased, but during 1924 and 1925 was somewhat diminished, as the result of the efforts of the Housing Committee. Many recent cases of overcrowding that have come to light seem to indicate, however, that certain persons have wilfully sought bad conditions in the hope that their case would excite the sympathy of the Committee, and enable them to secure a Municipal house at an early date.

The following are typical cases of overcrowding which the Committee have to deal with:—

(1) 8 adults and 5 children in 2/2 rooms.

(2) 6 adults and 5 children in 2/2 rooms.

(3) 5 adults and 7 children in 2/2 rooms.

(4) 4 adults and 10 children in 2/2 rooms.
(One expectant mother.)

(5) 2 adults and 2 children in one room.
(Mother expectant.)

(6) 8 adults and 6 children in 3/3 rooms.

(7) 8 adults and 2 children in 2/2 rooms.
(One expectant mother.)

(8) 8 adults and 1 child in 3/3 rooms.

(Man, wife, daughter 17, boy 12, sleeping in one bedroom.)

Many other cases might be quoted.

Overcrowded Houses.

The 742 applicants with their wives and families make a total of 1,535 adults and 1,187 children living in houses occupied by 4,061 adults and 2,394 children, a total of 6,455 persons. The average number of 2,394 persons in these houses, therefore, is 8.7, compared with an average of 5.05 persons per house for the whole of Warrington. Nearly all the applicants are living in houses with two or three bedrooms only.

The Committee have not been able to deal at all with the 181 applicants who live outside the Borough. It has been felt that it is essential to try and relieve the present overcrowding in the town before introducing new residents. Most of these applicants, however, are employed in Warrington, and it is most inconvenient if not an actual hardship, for many to have to travel to and from their work.

Lodgers in Corporation Houses.

No tenant of a municipal house is allowed to take lodgers without the previous consent of the Committee, who inquire into such points as present position of the proposed lodgers, possibility of overcrowding in the new house, the terms, &c.

112 tenants of Corporation houses have received permission to take lodgers.

In every instance, too, the applicant is asked whether he is prepared to take one of the cases from our overcrowded list.

Some of the tenants have had permission on two or three occasions to take new lodgers, the original lodgers having given up their rooms.

In all 142 families have been granted lodgings in Corporation houses.

Selection of Tenants.

The Housing Committee have appointed a Sub-committee of six members (Alderman James Evans, J.P., and Councillors Plinston, Archer, Chamberlain, Seed and Stringer), together with the Medical Officer of Health, to interview and select tenants. Selections are made almost entirely on the grounds of the urgency of the case from the point of view of the hygienic conditions under which the people are living, and it is often a very difficult matter with so many applicants and so few houses for allocation, to decide which are the most deserving.

The following are some of the points taken into consideration: —

(1) Overcrowding, especially where there are families of young children, which are very susceptible to this deleterious influence. Parents with young families find great difficulty in finding lodgings.

(2) Expectant mothers. The tenant of the house often gives notice to the lodgers to remove, if aware of the condition of the lodger's wife, and other persons won't accept them as lodgers, owing to the trouble and inconvenience involved.

(3) In many cases adults of opposite sexes are occupying the same bedroom. In others, the living rooms are being used as sleeping apartments.

(4) Owing to lack of accommodation, husbands have to live apart from wife and family.

(2) Cause.

The original cause of overcrowding in the Borough was the shortage of houses, due to lack of building before and during the war. An additional reason of recent years is shown above.

(3) Measures taken or contemplated to deal with overcrowding.

It is impossible to do very much to relieve overcrowding until more new houses are provided.

(4) Principal Cases of Overcrowding.

Whenever possible, our Inspectors have assisted to find other apartments for the worst cases of overcrowding. In this, too, the property owners and their agents have willingly helped.

One of the main conditions taken into consideration by the Committee in selecting tenants for Corporation houses is the question of overcrowding.

(5) In some cases the existence in the home of any serious illness, such as tuberculosis, renders overcrowding still more dangerous.

During the year the Medical Officer of Health and the Inspector had no less than 5,301 interviews at the Health Office with persons desiring housing accommodation; also 924 visits were paid to the homes of applicants. In many instances the accommodation granted to the lodger was improved by this, and in numerous cases we prevented lodgers from being ejected.

Complaints are sometimes received from disappointed applicants that they are unfairly treated in the selection of tenants. It is said that preference is given to young married couples. This is not so, but the idea probably arises from the fact that many young people have taken advantage of the Assisted Housing Scheme and purchased their own house, from a private builder. Again, it sometimes happens that a person who has not been long on our list receives a house before an applicant who has been waiting a long time. This is of course unavoidable, because the factors in choosing are the conditions of overcrowding, &c., at the time of selection, and not the length of time the applicant's name has been on our register.

Further, it is often stated that some of the applicants have purposely placed themselves in badly overcrowded conditions hoping that a house will then be granted to them. I can only say that careful investigation with regard to this is made in every instance, and if any case is proved it is not recommended for inclusion in the list of interviews.

III. Fitness of Houses.

1. (a) General standard of housing in the district.

The general standard of housing is good compared with many other similar industrial towns.

Only 3,065 houses are fitted with baths or hot-water supplies. Nearly all the houses have facilities for washing clothes. As a rule, however, the copper boilers are fixed in the scullery, and the washing is done there—no outside washhouses being provided.

A large proportion of houses are deficient in accommodation for storing food stuffs.

There are still 16 houses of the back-to-back type in the town, but we have no tenement houses, terrace houses, flats, nor cellar dwellings.

(b) **General character of defects found to exist in unfit houses.**

The majority of defects found by our Inspectors or reported to us, consist of:—

Defective Roofs.
Defective Spouting.
Blocked Drains.
Defective Closets.
,, Plaster on internal walls.

2. Action taken as regards unfit houses under (a) Public Health Acts. (b) Housing Acts.

(a) Public Health Acts.

Defects, when possible, are remedied by our powers under these Acts (especially sect. 91 P.H.A. 1875).

No. of Houses inspected for nuisances under P.H.A.	2,503	
No. of nuisances found	1,786	
No. of nuisances abated	1,409	(78.9 per cent.)

(b) Housing Acts.

Notices under Section 17, &c., of the Housing and Town Planning Act, of 1909, are issued as required, and much more would be done if we were in a position to re-house the occupants of some of the worst houses.

We have taken no proceedings under Section 28 of the new Act.

There are still within the Borough a number of houses which should have been closed as unfit for human habitation, but owing to the difficulty of finding other accommodation for the occupants we have been unable to take action.

3. Difficulties in remedying unfitness.

Our difficulties in this direction have been many. It is impracticable in some instances to carry out the drastic alterations necessary to make the house satisfactory whilst it is occupied, and owing to the shortage of accommodation in the town, little can be done until new houses have been provided. However, during the last year or two there has been a great improvement in this direction.

4. Conditions so far as they affect housing, as regards Water Supply, Closet Accommodation, and Refuse Disposal.

Water Supply.

All the houses are supplied with a constant supply of pure water from the Corporation mains, and each house has a separate tap.

Closet Accommodation.

There are only 2,325 water closets in dwelling-houses, the pail closet system being in vogue in approximately 13,500 cases.

Refuse Disposal.

There is at present only one dry ashpit in the Borough, and movable ashbins with covers have been substituted for fixed receptacles.

IV.—UNHEALTHY AREAS.

Areas represented to the Local Authority with a view to Improvement Schemes under (*a*) Part I. or (*b*) Part II. of the Act of 1890:—

(*a*) James Street Area, acreage=1.602 acres.
No. of working-class houses in area 118
No. of working-class persons to be displaced ... 531

(*b*) Dolman's Lane and Bank Street, acreage=3.486 acres.
No. of working-class houses in area 106
No. of working-class persons to be displaced ... 717
(This includes 14 Common Lodging-houses registered for 243 persons.)

The question of improving the James Street Area has been considered on many occasions during the past few years with a view to obtaining the State assistance which was offered, but it was decided that the time was inopportune.

Appendices.

HOUSING CONDITIONS.

STATISTICS, YEAR ENDING 31st DECEMBER, 1925.

1.—GENERAL.

(1)	Estimated population	77,970
(2)	General death rate	13.5
(3)	Death rate from tuberculosis	1.5
(4)	Infantile mortality	86
(5)	Number of dwelling-houses of all classes ...	15,434
(6)	Number of working class dwelling-houses ...	13,773
(7)	Number of new working class houses erected ...	329

2.—UNFIT DWELLING-HOUSES.

I. *Inspection.*

(1)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	2503
(2)	Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	393
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ...	Nil
(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation ...	1227

II. *Remedy of Defects Without Service of Formal Notices.*

	Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	460

III. *Action Under Statutory Powers.*

A. Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919—

(1)	Number of dwelling-houses in respect of which notices were served requiring repairs	Nil

(2) Number of dwelling-houses which were rendered fit—
(*a*) By owners Nil

(*b*) By Local Authority in default of owners Nil

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close Nil

B. Proceedings under Public Health Acts—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 767

(2) Number of dwelling-houses in which defects were remedied—
(*a*) By owners 1027
(*b*) By Local Authority in default of owners Nil

C. Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909—

(1) Number of representations made with a view to the making of Closing Orders... Nil

(2) Number of dwelling-houses in respect of which Closing Orders were made ... Nil

(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit Nil

(4) Number of dwelling-houses in respect of which Demolition Orders were made ... Nil

(5) Number of dwelling-houses demolished in pursuance of Demolition Orders ... Nil

INSPECTION AND SUPERVISION OF FOOD.

(*a*) MILK SUPPLY.

There are 73 Milkshops and 12 Cowsheds within this Borough. In addition to the milk supplied by the cows kept in the town, we receive milk from 72 farms chiefly situated in the Cheshire district.

During the year 47 samples were examined by the Borough Analyst; 4 were found to be adulterated (see page 61).

In addition, 92 samples were submitted to the Pathological Laboratory at Manchester, and in 10 cases infection with tubercle bacilli was found.

(i.) *Action as to Tuberculous Milk and Cattle.*

The examination of samples of milk to ascertain its freedom from tubercle bacilli has been carried out since the year 1900 under powers obtained in a local Act (1899) as follows:—

NOTICE IS HEREBY GIVEN that by Part IX. of the above Act it is provided that:—

PENALTY FOR SELLING MILK OF DISEASED COWS.

Sec. 96. Every person who knowingly sells or suffers to be sold or used for human consumption within the borough the milk of any cow which is suffering from tuberculosis of the udder shall be liable to a penalty not exceeding ten pounds.

PENALTY ON FAILING TO ISOLATE DISEASED COWS.

Sec. 97. Any person the milk of the cows in whose dairy is sold or suffered to be sold or used for human consumption within the borough who after becoming aware that any cow in his dairy is suffering from tuberculosis of the udder keeps or permits to be kept such cow in any field shed or other premises along with other cows in milk shall be liable to a penalty not exceeding five pounds.

OBLIGATION TO NOTIFY CASES OF TUBERCULOSIS.

Sec. 98. Every dairy man who supplies milk within the borough and has in his dairy any cow affected with or suspected of or exhibiting signs of tuberculosis of the udder shall forthwith give written notice of the fact to the Medical Officer of Health stating his name and address and the situation of the dairy or premises where the cow is.

Any dairyman failing to give such notice as required by this section shall be liable to a penalty not exceeding forty shillings.

POWER TO TAKE SAMPLES OF MILK.

Sec. 99 (1) It shall be lawful for the Medical Officer of Health or any person provided with and if required exhibiting the authority in writing of such Medical Officer of Health to take within the borough for examination samples of milk produced or sold or intended for sale within the borough.

(2) The like powers in all respects may be exercised outside the borough by the Medical Officer of Health or such authorised person if he shall first have obtained from a Justice having jurisdiction in the place where the sample is to be taken an order authorising the taking of samples of the milk which order any such Justice is hereby empowered to make.

Under this Act we have submitted between 80 and 100 samples of milk each year, and by this means during the past 11 years (from 1915 to 1925) have removed 78 cows found to be giving milk containing tubercle bacilli from the herds which were supplying milk for consumption within the Borough.

The Tuberculosis Order, 1925, issued by the Ministry of Agriculture and Fisheries gives further additional powers for the control of the milk supply and also makes notification of tuberculous animals universal throughout Great Britain. The difficulties in the past have been great for those few local Authorities who were anxious to carry out this important branch of public health work, for after we had taken the trouble to find the cow giving milk containing tubercle bacilli we had no power to prevent the owner removing it from his premises and selling it to another dairyman where no samples for this purpose were being taken. Also in several instances we have ascertained that the cows have been sent by dealers to auction marts in various parts of the country.

The new Order, and in addition the provisions in the Milk and Dairies (Consolidated) Act, 1915, both of which came into operation on the 1st September, 1925, will, we hope, tend to prevent in future the traffic in what are known by farmers and dealers as "wasters," for the greater number of the animals thus classed will now come under one of the three following headings, and any bovine animal in such a condition must now be notified to the Local Authority by the owner or veterinary surgeon in attendance:—

(i.) Any cow which is, or appears to be, suffering from tuberculosis of the udder, indurated udder, or other chronic disease of the udder; or

(ii.) Any bovine animal which is, or appears to be, suffering from tuberculous emaciation; or

(iii.) Any bovine animal which is suffering from a chronic cough and showing definite clinical signs of tuberculosis.

From the 1st September, the date on which the Order came into operation, to the end of the year four notifications were received from cowkeepers within the Borough.

The Veterinary Inspector, after examination, certified that in all four cases the animals were affected with tuberculosis. They were classed as follows:—

1 cow in milk suffering from tuberculosis of the udder.
1 ,, ,, suffering from tuberculous emaciation.
2 other cows ,, ,, ,, ,,

The market value of each animal was fixed by agreement between the Local Authority and the owner of the animal.

The findings of the Veterinary Inspector at the post-mortem examination of the carcase showed that in all four cases the animals were suffering from advanced tuberculosis.

Compensation was paid in accordance with the scale laid down in the Order.

(ii.) *Licences for Sale of Milk under Special Designations.*

No applications have been received during the year for licences for the sale of milk classified as in the Fourth Schedule of the Milk (Special Designations) Order, 1923.

(iii.) *Refusal of Licences.*

No refusal of registration of retailer or of licences for graded milk have taken place during the year.

(iv.) *Summarized Results of Bacteriological Examination of Milk.*

	1925.	1924.	1923.	1922.	1921.
Samples of milk submitted for Bacteriological Examination...	92	88	84	79	81
Number found to contain tubercle bacilli	10	7	10	14	6
Number of cows giving milk containing tubercle bacilli which were found and dealt with	8	5	8	7	7

MEAT AND OTHER FOODS.

The Public Health (Meat) Regulations, 1924.

The above regulations came into force on the 1st April, 1925. Previous to this day a meeting was held in the Town Hall, to which all the butchers were invited. The Medical Officer of Health and the Chief Inspector detailed the various clauses, and this was followed by a free discussion.

The butchers have co-operated willingly in the carrying out of these regulations. Notices were received from the occupiers of the slaughter-houses stating the days and hours at which slaughtering will take place. Notifications of intention to slaughter (chiefly from pig keepers, who only slaughter animals at irregular intervals) has been invariably complied with.

Section 9 of the Meat Regulations states that notice shall be given forthwith of any deceased or unsound conditions found in the carcase during the process of slaughtering. This has been willingly carried out, and in 29 such instances notice has been sent to the Health Department.

There is no Public Abattoir in this Borough. The following summary gives the number of slaughter-houses both registered and licensed:—

	In 1920.	1925. In January.	1925. In December.
Registered	3	2	2
Licensed	9	8	8
Total ...	12	10	10

Two of the slaughter-houses are only used at irregular intervals, and the occupiers notify the Health Department on the day previous to the same being used. In another pigs only are slaughtered.

Systematic visits are paid to the slaughter-houses by the District Sanitary Inspectors and the Chief Inspector.

The total number of carcases, &c., condemned in the slaughter-houses during the year was as follows:—

17 cow, 2 sheep and 12 pig carcases with their offals, and in addition 1,847 lbs. of offal from other animals.

The chief cause for condemnation in both cows and pigs was tuberculosis.

The following table is a summary of the amount of unsound food which has been destroyed by the Health Department during the year:—

Article.	Quantity.	Article.	Quantity.
Beef ...	123 cwts.	Fish ...	43 cwts.
Offal ...	17 cwts.	Rabbits ...	56 carcases
Mutton ...	3 cwts.	Fowl ...	32
Pork and Bacon ...	26 cwts.	Mushrooms...	15½ lbs.
Beast feet ...	18 cwts.		
Tinned Meat	20 lbs.		

The Public Health Act, 1925, has made it illegal for any rag and bone dealer to sell or distribute articles of food or toys from his cart. This is certainly a step in the right direction in the prevention of certain infections. Many hawkers, however, do not possess their own horse and cart, but have to hire them day by day. It is therefore not an uncommon thing for a cart that has one day been laden with filthy rags, bones, and similar articles, to be used the next day for the hawking of fish or fruit, without any disinfection in the interval.

It would have been an advantage if some clause could have been incorporated in the Act making it compulsory for the thorough cleansing beforehand of any vehicle used for the retail and distribution of foodstuffs.

THE SALE OF FOOD AND DRUGS ACTS.

The following table gives the number of samples analysed of each variety during the year, the samples adulterated, and the extent of the adulteration:—

	Examined.	Adulterated.	Extent of the adulteration.
Milk	47	4	114—1.7 per cent. water added. 127—Fat reduced 16 per cent. 132—Fat reduced 10 per cent. 136—Fat reduced 7 per cent.
Cream	8	—	
Condensed Milk	3	2	If diluted according to labels these milks would contain 2.7 and 2.6 per cent. fat.
Dried Milk	1	—	
Butter	36	4	836—Contained 13 grains boric acid per lb. 107a—16.18 per cent. water. 109b—22.5 grains boric acid per lb. 148b—16.36 per cent. water.
Cheese	4	—	
Mincemeat	5	—	
Chocolates	4	—	
Gums	13	—	
Sponge Cakes	6	—	
Dried Fruits	5	4	99 (Pears)—10 grains sulphur dioxide per lb. 100 (Apricots)—9 grains sulphur dioxide per lb. Pears—8 grains sulphur dioxide per lb. Apricots—9 grains sulphur dioxide per lb.
Baking Powder	5	2	12 and 15 per cent. deficient in available gas.
Prawns	2	1	118—41 grains boric acid per lb.
Sausages	2	—	
Lime Juice Cordial	1	—	
Beer	7	—	
Stout	1	—	
Total	**150**	**17**	

If the Public Analyst reports that a formal sample is not genuine, the particulars of the case are reported to the Health Committee and action is taken on their decision.

The following is a summary showing the number of samples analysed, number adulterated, and the number of varieties of food and drugs (exclusive of special samples obtained for further information) dealt with during the past five years:—

	1921.	1922.	1923.	1924.	1925.
Samples analysed	102	122	125	114	150
Samples adulterated	8	12	15	22	17
Samples adulterated per cent.	7.8	9.8	12.0	19.3	11.3
Number of varieties	13	13	14	14	16

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912 & 1917.

(1) Milk and Cream not sold as Preserved Cream.

	Number of Samples examined for the Presence of a Preservative.	Number in which Preservative was reported to be present.
Milk	47 ...	Nil
Cream	2 ...	Nil

(2) Cream sold as Preserved Cream.

(*a*) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i.) Correct Statement made	6
(ii.) Statements incorrect	0
Total	6

CONTAGIOUS DISEASES (ANIMALS) ACTS.

The two diseases which have required special attention during the year are Foot and Mouth Disease and Swine Fever.

FOOT AND MOUTH DISEASE.

No cases of Foot and Mouth Disease are known to have occurred within the Borough, but at various periods Warrington was included in a Scheduled Area owing to cases of the disease in surrounding districts. This necessitated the granting of movement licences for fat cattle for slaughter or animals for breeding purposes, while the movement of store cattle was only permitted when absolutely necessary.

Markets or sales of fat stock for immediate slaughter were held when a licence was obtained from the Local Authority. The cattle had to be removed from the sale yard direct to a slaughter house, consequently as the owner was unable to take his cattle home again if he found a bad market, very few cattle were sent in while the restrictions for a scheduled area were in force. The new regulations now permit a beast to be taken back to the farm from which it came if not sold and to be there detained for 6 days.

1,043 licences were issued from the Health Department for the movement of cattle, sheep or pigs into or within the Borough during the periods in 1925 when the Scheduled Areas Regulations were applied to this district.

From September to December 31st, 1925, there were 235 outbreaks of Foot and Mouth Disease in England, Scotland and Wales.

Swine Fever.

One of the largest outbreaks of Swine Fever there has been in this Borough for the past 20 years occurred in the Whitecross and St. Austin's Wards in 1925. The disease was discovered on six separate premises on which were kept 194 pigs, considerable loss being entailed by the owners. Each separate case was reported to the Board of Agriculture, who sent their own veterinary officer to ascertain, if possible, the cause and to make a post-mortem examination on the carcase of the suspected animal.

The following is the procedure in such outbreaks:—

If the Veterinary Officer of the Board finds it necessary to kill a pig to obtain the necessary information, the value of the animal is agreed upon beforehand with the owner. The remainder of the pigs are kept upon the premises at the risk of the owner. He may have the apparently healthy animals slaughtered on the premises, and if the Inspector of the Local Authority has examined the carcases and found them free from disease he may sell the same for human food.

Compulsory slaughter is not enforced by the Board of Agriculture, nor do they pay compensation for loss in the case of an outbreak of Swine Fever.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

NOTIFIABLE ACUTE INFECTIOUS DISEASES.

The incidence of and number of deaths from all the notifiable infectious diseases for the past five years are shown in the following table:—

DISEASE	Cases notified in					Deaths registered in				
	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925
Smallpox	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	264	363	173	319	271	...	4	1	11	5
Measles	218	872	696	666	1206	3	14	18	18	39
German Measles	...	...	...	...	...	...	...	...	...	...
Diphtheria & Membranous Group	88	33	58	66	99	5	3	3	1	6
Enteric or Typhoid Fever..	5	3	4	4	1	2	...	1	1	...
Puerperal Fever	8	5	6	7	11	3	1	7	2	4
Cholera	...	...	...	...	...	...	...	...	...	...
Typhus	...	...	...	...	...	...	...	...	...	...
Erysipelas	33	46	40	55	85	...	1	1	1	4
Plague	...	...	...	...	...	...	...	...	...	...
Phthisis	131	164	146	148	160	78	108	92	101	99
Other forms of Tuberc'l'sis	80	80	55	80	74	24	24	22	9	18
Cerebro-Spinal Meningitis	...	...	...	...	1	...	...	...	...	1
Poliomyelitis	1	...	1	...	1	...	...	...	...	...
Ophthalmia Neonatorum	...	15	9	8	12	...	...	...	...	...
Malaria	...	2	...	2	...	...	...	...	...	...
Encephalitis Lethargica ...	4	...	...	13	8	4	1	...	7	4
Dysentery	...	...	...	...	...	...	...	...	...	...
Pneumonia	205	317	291	339	430	102	111	79	76	120
Trench Fever	...	...	...	...	...	...	...	...	...	...

It will be noted that there is considerable variation in the number of cases from year to year, but it is a striking fact that taking the five yearly periods from 1901 up to 1925 there has been a steadily progressing fall for each period for practically all the infectious diseases, both as regards the proportion of deaths to cases and also the actual death rate. For diphtheria and scarlet fever these facts are shown in the table on page 65, and the same thing is evident for measles and whooping cough (page 69). By far the largest number of deaths from infectious diseases, however, occur from tuberculosis, and pneumonia (more than 75 per cent), and although the tuberculosis death rate is diminishing slowly but surely, the same cannot be said of that from pneumonia.

Taking last year (1925), no less than 237 deaths out of the 300 from infectious causes were due to pneumonia or forms of tuberculosis.

Year.	DIPHTHERIA.							SCARLET FEVER.						
	No. of cases notified	Average notification for 5 year periods.	No. of deaths.	Case mortality per cent.	Average case mortality 5 year periods	Deaths per 1,000 living.	Death rate 5 year periods	No. of cases notified	Average notification for 5 year periods	No. of deaths	Case mortality per cent.	Average case mortality 5 year periods	Deaths per 1,000 living.	Death rate 5 year periods
1901	25		8	32.0		0.12		80		1	1.3		0.00	
2	24		6	25.0		0.09		211		8	4.3		0.10	
3	34		11	32.3		0.02		289		9	1.4		0.10	
4	34		26	76.5		0.06		1042		52	5.0		0.70	
5	27	29	7	25.9	38.3	0.12	0.08	201	365	9	4.0	3.2	0.10	0.20
6	28		9	32.1		0.12		64		8	3.1		0.02	
7	78		14	17.9		0.19		311		12	3.7		0.16	
8	123		16	13.0		0.22		321		16	4.9		0.22	
9	146		26	17.8		0.35		381		21	5.5		0.28	
1910	108	97	7	6.5	17.5	0.09	0.19	140	245	5	3.5	4.1	0.06	0.15
1	88		9	10.2		0.12		111		4	3.6		0.05	
2	110		11	10.0		0.15		144		10	6.9		0.13	
3	108		9	8.3		0.12		210		7	2.9		0.09	
4	127		12	9.4		0.16		1133		24	2.1		0.32	
5	89	104	22	24.7	12.5	0.30	0.17	945	514	29	3.0	3.7	0.40	0.20
6	92		10	10.8		0.15		233		1	0.4		0.01	
7	85		8	9.4		0.13		57		2	3.5		0.02	
8	98		9	9.2		0.13		205		9	4.4		0.13	
9	131		12	9.1		0.16		153		5	3.3		0.06	
1920	99	101	8	8.1	9.3	0.10	0.13	107	151	2	1.8	2.7	0.02	0.05
1	88		5	5.7		0.06		264		0	0.0		0.00	
2	33		3	9.1		0.03		363		4	1.1		0.05	
3	56		3	5.3		0.04		173		1	0.6		0.01	
4	66		1	1.5		0.01		313		11	3.5		0.14	
5	99	68	6	6.1	5.5	0.08	0.04	271	277	5	1.8	1.4	0.06	0.05

NOTIFIABLE INFECTIOUS DISEASES, YEAR 1925.

DISEASE	Under 1 year.		1 to 2		2 to 3		3 to 4		4 to 5		5 to 10		10 to 15		15 to 20		20 to 35		35 to 45		45 to 65		65 years and over		TOTAL	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Diphtheria ...	2	1	5	2	8	1	15	...	8	1	24	1	12	...	8	...	15	...	2	...	...	...	...	...	99	6
Scarlet Fever ...	1	...	8	...	16	...	18	2	42	1	125	2	40	...	13	...	8	...	...	...	...	...	...	...	271	5
Enteric Fever ... (Including Para Typhoid)	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Puerperal Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	1	2	2	...	...	...	...	11	4
Pneumonia ...	35	26	30	18	29	6	16	4	17	3	73	6	21	2	26	3	55	12	39	6	73	22	16	12	430	120
Erysipelas ...	3	1	...	...	3	...	...	...	...	...	2	...	4	...	5	.	15	...	21	1	26	6	6	...	85	4
Poliomyelitis ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	2	2	...	1	...	1	2	...	...	8	4
Measles (Notifiable under 5 years)	113	6	215	18	260	6	277	3	341	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...	1206	39
Ophthalmia ...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	...
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1
																								TOTAL ...	2125	183

TUBERCULOSIS—See Table, Page 78.

The **VACCINATION RETURNS** show an ever-increasing non-vaccinated population growing up in our midst.

	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
Births	2258	2226	2041	2111	2166	2238	1900	1774	1540	1625	1640	2272	2034	1808	1784	1642	1741
Successfully vaccinated	1890	1754	1470	1313	1287	1421	1151	970	1183	876	1050	1433	1295	1244	1216	1192	1158
Insusceptible of vaccination	3	3	10	3	—	2	2	2	1	3	1	4	2	1	5	2	1
Died unvaccinated	165	177	192	115	156	168	133	108	78	107	116	121	120	87	75	98	87
EXEMPTIONS	**169**	**210**	**253**	**251**	**347**	**407**	**382**	**331**	**334**	**285**	**332**	**574**	**484**	**400**	**325**	**278**	**325**
Removed: Address unknown	13	50	73	35	50	5	20	46	1	12	19	18	46	52	20	35	31
Had Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children born in other districts but vaccinated here	—	—	16	9	11	—	5	2	8	10	24	17	14	14	17	12	13

During 1925, out of 1,741 children born, only 1,158, or 66 per cent., were successfully vaccinated.

Smallpox.

There have been no cases of this disease in the Borough since 1906. The provision of our new Sanatorium at Weaverham enabled the Institution at Sankey to revert to its original purpose as a Smallpox Hospital.

As there is a shortage of accommodation for this class of case in South Lancashire in the event of an epidemic, many of the surrounding districts have arranged for us to treat their cases at Sankey.

In January, 1922, an agreement for this purpose was completed with the County Boroughs of Wigan, St. Helens, the Urban Districts of Lymm and Runcorn, and the Rural Districts of Warrington and Runcorn, This will be reviewed at the end of five years, but in the meantime the expense of the undertaking is being shared by us with these Authorities on the basis of population.

At various times the Medical Officer of Health has been asked by practitioners to see cases suspected of being smallpox, and contacts with cases from other areas have been kept under close supervision by us when necessary.

No vaccinations were performed during the year by the Medical Officer of Health under the Public Health (Smallpox Prevention) Regulations, 1917, as in all cases contacts coming into the town had been dealt with by the Medical Officers in the districts from which they came.

Scarlet Fever.

During 1925 there were 271 cases with 5 deaths (mortality rate .06 per 1,000, compared with .14 per 1,000 the previous year).

A table is given on page 65 showing the incidence and death rates from scarlet fever since 1901. The case mortality and death rate have steadily diminished during this period.

Out of the 271 cases, 251 (or 92 per cent.) were removed to Aikin Street Hospital.

Some inquiries were made during the year into the infectivity of cases of scarlet fever in overcrowded houses. Altogether 271 cases were notified from 242 houses; 216 houses had single cases; 23 houses had two cases; 3 houses had three cases.

In 216 houses with single cases there were 294 children under 15 years of age in contact, who had not previously had the disease and who did not develop it.

The following figures have been worked out for all houses from which a case was notified and where persons under 15 resided:—

	Cases notified under 15 years.	Incidence rate per 1,000 persons under 15.
128 houses of 4 rooms ...	135 ...	376
85 ,, 5 ,, ...	90 ...	471
8 ,, 6 ,, ...	8 ...	421
8 ,, 8 or more rooms	9 ...	529

It is noteworthy that in the smaller houses containing often most children the incidence rate was lowest. To some extent this may be due to the fact that the numbers of larger houses is too small on which to base accurate statistics.

The next table shows the incidence rate according to the number of persons per room, divided to show separate figures for those removed to hospital and those nursed at home:—

	Incidence rate per 1,000 persons under 15 years.	
	Hospital.	Home.
Less than 1 person per room	683 ...	769
1 to 2 persons per room	416 ...	533
2 to 3 persons per room	251 ...	222

Only 20 cases, or 7.4 per cent. were nursed at home, but again there is apparently no direct relationship between overcrowding and the spread of scarlet fever.

Measles.

This disease in Warrington is only notifiable in the case of children under five years of age.

There were 1,206 cases notified with 39 deaths, a mortality rate of .5 per 1,000.

There has been a steady fall in the average number of deaths, and the average death rate for the past 25 years is as follows:—

Period.	Average number of deaths.	Average death rate.
1901 to 1905 ...	55 ...	0.84
1906 to 1910 ...	46 ...	0.63
1911 to 1915 ...	35 ...	0.48
1916 to 1920 ...	21 ...	0.31
1921 to 1925 ...	18 ...	0.23

An epidemic of measles began about the middle of June, 1925, and continued until the end of the year. The number of cases coming to our notice was greater than in any other year for which we have records.

As a rule an epidemic of this disease may be expected every second, or at most every third year, and the steps taken to deal with such outbreaks were detailed in my 1916 Report.

No cases were treated in hospital during 1925, but the District Nurses attended in the patients' own homes, in accordance with our arrangements (page 125).

633 visits were paid by the Nurses in supervising home treatment.

2,426 visits were paid by the Inspectors to the homes of children affected.

German Measles.

No cases notified during the year 1925.

Diphtheria and Membraneous Croup.

In 1925 there were 99 cases notified with 6 deaths (a death rate of 0.07 per 1,000).

As with Scarlet Fever, so with this disease, there has been a steady decrease both in case mortality and death rate for five yearly periods during the past 25 years.

In the table, page 65, it will be seen that the proportion of deaths to cases has been reduced from 38.3 per cent. to 5.5 per cent., and the death rate from 0.07 to .04 per 1,000.

Use has not yet been made in this area of the Schick Test, by which means the susceptibility or otherwise of persons to contract diphtheria can be discovered.

Cases were treated in hospital, and in certain laryngeal cases tracheotomy was performed. A summary of the results of these operations for the past five years is shown on page 76.

Enteric Fever.

1 case was notified with no deaths during 1925.

The incidence of this disease in most modern towns now is practically nil.

Puerperal Fever.

There were 12 cases with 3 deaths, a mortality rate of .03 per 1,000 compared with .02 per 1,000 in 1924.

Some further particulars re this disease are given on page 121.

Erysipelas.

85 cases of this disease were notified during 1925.

Cases of erysipelas are not treated at Aikin Street Hospital, but are almost invariably admitted to the Whitecross Institution.

Tuberculosis.

Reference is made to this disease on page 76.

Cerebro Spinal Meningitis and Poliomyelitis.

There was one case of cerebro spinal meningitis which died, and one of poliomyelitis that recovered.

Ophthalmia Neonatorum.

There were 12 cases in 1925. This is referred to again on page 124.

Malaria, Dysentery, and Trench Fever.

No cases of these diseases occurred during the year.

Encephalitis Lethargica ("Sleepy Sickness").

Altogether 8 cases were notified, of which 4 died. This disease is often very hard to diagnose. In typical cases the early symptoms may consist of somnolence, headache, double vision, squint, general lethargy, with or without a febrile temperature, vomiting and diarrhœa. Various serious results may persist after the acute illness has passed away, leading to mental instability, complete change in character, paralysis, etc.

In any cases occurring in this town careful inquiries are made as to possible source of the disease. Patients, when possible, are removed to our Isolation Hospital, homes disinfected, and all steps taken to prevent any spread of the disease.

Many cases are undoubtedly missed at the onset, and only become obvious sometimes months or years later when the patient developes various paralyses or mental changes.

For these post encephalitic cases, of which there are several in our town, accommodation is necessary in special institutions, but there is a great lack of such in this country.

ENCEPHALITIS LETHARGICA, 1925.

Age	Occupation	Date Notified	Date Onset	Date of Death	Where treated	Remarks.
36	Household	1925 22nd Jan.	Dec. 1924	...	WhitecrossHosp.	Still in Hospital
55	Labourer of Ironworks	12th Feb.	24th Jan.	26th Feb.	Home (refused removal to Hos.	—
7	Scholar	19th April	9th Mar.	...	Home	Has had operation by specialist and is improving considerably
23	Book-Keeper, Stov'works	11th June	9th June	...	Home	—
15	Helper, Cockhedge Factory	28th „	14th June	10th July	Aikin St. Hosp.	—
19	Weaver, Cockhedge Factory	29th July	21st July	9th Aug.	Whitecross Hos.	—
21	Musician	16th Dec.	9th Dec.	19th Dec.	Whitecress Hos.	This youth was a cripple and took up Music as a profess'n

Acute Primary and Influenzal Pneumonia.

The total number of notifications received was 430, and out of these cases deaths resulted in 81 instances.

In the Annual Return of deaths, page 42, deaths from influenza pneumonia are included under influenza, the primary cause, and not under pneumonia.

It is clear that many cases of pneumonia were not notified to us at all. From the death returns we found 39 cases which had not been notified, and further than this there would probably be others that recovered.

The main object of the notification of acute Pneumonia is that nursing and other assistance, which is of the greatest service in cases of this dangerous disease, may be provided if necessary for the patient.

Notification has been very useful to us in this respect, but it is essential that notification should be prompt, or it is often valueless.

In the following table particulars are given of the cases which proved fatal, showing when they were notified:—

Died before notification	20
,, same day as notification received	11
,, within 48 hours of notification	16
,, 48 hours or more after notification ...	34

In 20 cases or about $\frac{1}{4}$ of them death occurred before notification and a further 13.6 per cent. died within 12 hours of being notified.

NON-NOTIFIABLE ACUTE INFECTIOUS DISEASES.

The following cases of non-notifiable infectious diseases came to our notice and were dealt with during the year:—

Measles (in children over 5 years of age)	1217
German measles	3
Whooping cough	588
Chickenpox	766
Mumps	325
	2,899

These do not represent the total of these diseases that have occurred in the Borough, but only those of which we have become aware.

As regards MEASLES, the cases given here are in addition to those notified to us as occurring in children under 5 years of age (see page 69).

Whooping Cough

like measles is a very fatal disease in young children. The number of cases during 1925 showed an increase over the figures for the past four years, and was considerably above the average (255) for the last 5 years. There were 20 deaths from the disease. At the same time, the decline in the mortality rates over the quinquennial periods since 1901 is evident from the following table:—

Period.	Average number of deaths.	Average death rate.
1901 to 1905	39	0.58
1906 to 1910	26	0.36
1911 to 1915	23	0.31
1916 to 1920	17	0.25
1921 to 1925	17	0.22

Chickenpox.

The number of cases coming to our notice was greater than any during the last five years. The average for the five years was 396. No deaths were reported from this disease.

Mumps showed an increase over the number of cases for last year, and coincides with the average for the last five years. This complaint was not responsible for any deaths.

Influenza is not notifiable unless accompanied by pneumonia, so that we have no means of knowing the incidence of this disease during the period under review. There were however, 42 deaths attributed to it during 1925.

Anthrax.

No cases of this disease occurred during 1925, and no examinations of blood films in suspected cases were required.

Tetanus.

No cases of "lockjaw" occurred during 1925, and no inquiries were received from general practitioners for supplies of antitoxin, which is distributed free from the Health Department for the prophylactic treatment of wounds.

Rabies.

A suspected case of rabies in a dog was reported during the year, and every precaution taken, but the illness was discovered to be due to a different cause

WORK OF THE INSPECTORS DEALING WITH INFECTIOUS DISEASES.

The following is a statement of the visits paid by the Inspectors during the year:—

Visits to premises where cases of Scarlet Fever, Diphtheria, or Enteric Fever occurred	371
Revisits to premises where cases of Scarlet Fever, Diphtheria, or Enteric Fever had occurred to ascertain as to contacts, &c.	295
Revisits to premises where cases of Scarlet Fever or Diphtheria have been treated at home	93
Visits to premises where cases of Measles have occurred ...	2426
Revisits to premises while the cases of Measles were being treated	1654
Visits to homes of children reported by Education Department as being absent from School owing to either Whooping Cough, Chickenpox, or Mumps	1679
Revisits to homes of children suffering from either Whooping Cough, Chickenpox, or Mumps	1668
Visits to homes when children are absent from school with a Sore Throat or suspicious Rash	189
Visits to homes where cases of Influenza or Pneumonia have occurred	386
Visits to premises *re* cleansing and disinfection after cases of infectious disease	31
Total	8,792

Information obtained as to cases of infectious disease is submitted to the Medical Officer of Health, and the matters contained therein dealt with according to his instructions.

Attention was also paid to the disinfection of the premises, bedding, and clothing, especially after cases of notifiable infectious disease, and also to the cleansing and stripping of the walls where necessary.

3,494 Notices have been sent to the Headmasters or Mistresses of the various Day and Sunday Schools in the Borough, informing them of any case of infectious disease occurring amongst the scholars attending their school, and also stating the period during which both the sufferer and any child who has been in contact must be excluded.

DISINFECTION.

Month.		Houses.		Articles.
1925—January	...	74	...	493
February	...	62	...	367
March	...	51	...	339
April	...	72	...	433
May	...	79	...	524
June	...	67	...	433
July	...	81	...	439
August	...	49	...	296
September	...	45	...	218
October	...	49	...	248
November	...	54	...	317
December	...	42	...	241
Total	...	725	...	4348

37 Notices were served for the stripping and cleansing of premises where certain cases of Infectious Disease had occurred.

AIKIN STREET ISOLATION HOSPITAL.

The diseases at present treated at this Isolation Hospital are Scarlet Fever Diphtheria, Enteric Fever, Measles and Puerperal Fever. No charge whatever has been made for many years to patients residing within the Borough. When circumstances permit cases from the Runcorn Rural, Warrington Rural, and Lymm Urban Districts are admitted.

Summary of number of Patients and Diseases for 1925:—

	From the Borough.	From Warrington Rural District.	From Lymm U.D.C.	Total.
Remaining in hospital at the end of 1924 ...	59	—	—	59
Admitted during 1925:				
As Scarlet Fever ...	251	16	4	271
,, Enteric Fever ...	—	—	—	—
,, Diphtheria	95	7	1	103
.. Measles	1	—	—	1
,, Puerperal Fever ...	1	—	—	1
Other causes	6	—	—	6
Under treatment during 1925	*413	23	5	441

* This figure does not include the cases of ailing babies referred to on page 122.

Deaths during 1925:

	From the Borough.	From Warrington District. Rural	From U.D.C. Lymm	Total.
Measles	1	—	—	1
Scarlet Fever	5	1	—	6
Enteric Fever	—	—	—	—
Diphtheria	3	—	—	3
Puerperal Fever ...	—	—	—	—
Other causes	4	—	—	4
Totals	13	1	—	14

In hospital at end of 1925:

Scarlet Fever	11	—	—	11
Diphtheria	5	—	—	5
Totals	16	—	—	16

3 cases admitted as Diphtheria proved to be Scarlet Fever.

1 case admitted as Scarlet Fever proved to be Measles.

Out of 25 cases admitted as Laryngeal Diphtheria the operation of tracheotomy was performed in 12 cases (9 recovered—3 died).

The following table shows the number of operations performed during the past 5 years:—

RETURN OF CASES OF TRACHEOTOMY DURING 1921—1925.

	No. of operations performed.	No. of recoveries.	No. of deaths.
1921 ...	15 ...	9 (60%) ...	6 (40%)
1922 ...	7 ...	5 (71.4%) ...	2 (28.6%)
1923 ...	3 ...	2 (66.6%) ...	1 (43.4%)
1924 ...	3 ...	3 (100%) ...	Nil
1925 ...	12 ...	9 (75%) ...	3 (25%)
Total ...	40 ...	28 (70%). ...	12 (30%)

TUBERCULOSIS.

Number of Cases in the Town.

To our knowledge the number of persons suffering from tuberculosis resident in Warrington at the end of 1925 was 946, divided as follows:—

	Males.	Females.	Total.
Pulmonary	388	199	587
Non-Pulmonary ...	195	164	359
	583	363	946

and living in close contact with these 946 cases were 3,854 persons.

Our register of cases is revised at the end of each year, and cases which have left the town or been apparently well for several years (5 years for pulmonary and 3 years for non-pulmonary cases) are removed.

The number of new cases notified during 1925 was 234, and the following table shows how this number compares with previous years:—

	1921.	1922.	1923.	1924.	1925.
Pulmonary	131	164	146	148	160
Non-Pulmonary ...	80	80	55	80	74
Total	211	244	201	228	234

Compulsory notification of all forms of tuberculosis came into operation in February, 1913, and this table shows the average notification rate from 1913 per 1,000 people:—

	Pulmonary.	Non-Pulmonary.	All Forms.
1913—1915 (3 years) ...	2.78	1.64	4.42
1916—1920 (5 years) ...	2.19	1.04	3.23
1921—1925 (5 years) ...	1.91	0.94	2.85

The notifications were received as follows:—

Primary Notifications.

	Pulmonary.	Non-Pulmonary.	Total.
From Private Practitioners	106	33	139
Poor Law Doctors and Hospitals ...	36	9	45
Voluntary Hospitals	1	19	20
School Medical Officer	2	10	12
Tuberculosis Dept....	15	3	18
Total ...	160	74	234

Duplicate Notifications.

Of the 234 cases, 56 were known to be suffering from tuberculosis before they were officially notified to us, 6 being contacts, 4 coming up of their own accord for examination, and 46 being sent by private practitioners and others:—

The following tables show the notified cases divided into certain groups:—

Pulmonary Tuberculosis.

	Males.	Females.	Total.
Adults Insured	78	26	104
Non-insured ...	8	28	36
School Children	10	9	19
Children under school age...	1	0	1
	97	63	160

Non-Pulmonary Tuberculosis.

	Males.	Females.	Total.
Adults Insured	5	5	10
Non-Insured ...	2	9	11
School Children	19	18	37
Children under school age...	11	5	16
	37	37	74

Notifications divided into 5 year age periods:—

Notifications. Tuberculosis—	Under 1	1—5	5—10	10—15	15—20	20—25	25—35	35—40	45—55	55—65	65 & up.	
Pulmonary M.	...	...	4	5	9	4	19	26	21	7	2	97
F.	1	...	4	5	9	16	13	8	4	2	1	63
Total ...	1	...	8	10	18	20	32	34	25	9	3	160
Non-Pulmonary M.	...	11	12	7	1	4	2	...	...	...	...	37
F.	...	5	10	9	4	2	3	4	...	...	...	37
Total ...	—	16	22	16	5	6	5	4	...	...	...	74

In the notified cases of the non-pulmonary forms of the disease the parts of the body affected are shown below:—

Part affected.	Adults.	Children.	Total.
Glands	5	17	22
Abdomen	2	18	20
Bones and Joints ...	10	8	18
Brain and Meninges ...	1	5	6
Other parts	3	5	8
	21	53	74

Occupational Incidence.

The following tables show the occupational incidence of Tuberculosis in Warrington during the period 1921-25. Only the principal trades which employ a large number of workers are shown, and even in them the average rates will in many cases tend to be abnormal owing to the comparatively small numbers dealt with:—

Occupation.	No. of workers (1921 census).	No. of cases notified. 1921-25.	Average rate 1921-25.
Males.			
Soap workers ...	347	18	50.9
Brewery workers ...	324	15	46.2
Carters	381	13	34.1
Iron & steel workers	3360	79	23.5
Building trade ...	1120	26	23.2
Railway workers ...	353	8	22.6
Skin & leather workers	386	8	20.7
Wire workers ...	2299	44	19.1
Gas stove makers...	755	14	18.5
Clerks	878	13	14.8
Chemical workers ..	370	5	13.6
Females.			
Household workers	7550	153	20.2
Cotton weavers ...	795	13	16.3
Clerks	566	7	12.3
Velvet cutters ...	557	6	10.7
Domestic servants..	872	8	9.1

Deaths from Tuberculosis.

The number of persons certified as having died from Tuberculosis during 1925 was 117—99 from Pulmonary Tuberculosis and 18 from other forms. This gives a death rate of 1.5 per 1,000. The death rate is gradually falling, and the following table and charts, showing the death rate in Warrington from 1901 divided into 5 year periods, are instructive:—

Period.	Pulm.	Non-Pulm.	All forms.
1901—1905 ...	1.27	0.78	2.05
1906—1910 ...	1.27	0.66	1.93
1911—1915 ...	1.52	0.48	2.00
1916—1920 ...	1.39	0.39	1.78
1921—1925 ...	1.22	0.24	1.46

Non-Notified Deaths.

There were 8 non-notified deaths during 1925—5 pulmonary and 3 non-pulmonary. Three of these died in their own homes and 5 in institutions, i.e., Union Infirmary, Winwick Asylum, Warrington Infirmary, Royal Southern Hospital at Liverpool.

The percentage of such deaths has fallen very considerably since 1920, as this table shows:—

	Non-notified deaths.	Total deaths.	Percentage of non-notified deaths.
1920	20	93	21.5
1921	12	102	11.72
1922	13	132	9.08
1923	9	114	7.08
1924	10	110	9.09
1925	8	117	6.08

SUPERVISION OF CASES.

Staff.

The Staff for dealing with tuberculosis within the Borough consists of the Medical Officer of Health, who is Chief Tuberculosis Officer, an Assistant Medical Officer, who resides at the Sanatorium, and assists with the work in the Borough, one male inspector, a nurse and a clerk.

Dispensary.

This is the centre for dealing with the disease. It is here that new patients are examined and advised, old cases are overhauled, contacts seen, relatives advised as to the care of patients, &c., and certain forms of treatment given. It is open every day from 9 to 5.30 (except Saturday, when it closes at 12.30). Medical examinations are made on Monday, Tuesday, Wednesday and Thursday afternoons, and on Fridays if necessary.

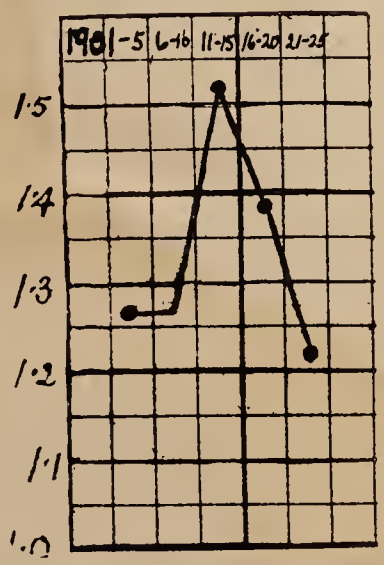
There has been a marked increase in the number of patients attending, as shown in the following table, and in the chart showing this number from 1915 to 1925:—

	No. of cases attending.	Attendances.
1921 ...	466	1460
1922 ...	511	1781
1923 ...	698	2123
1924 ...	820	2151
1925 ...	1047	3291

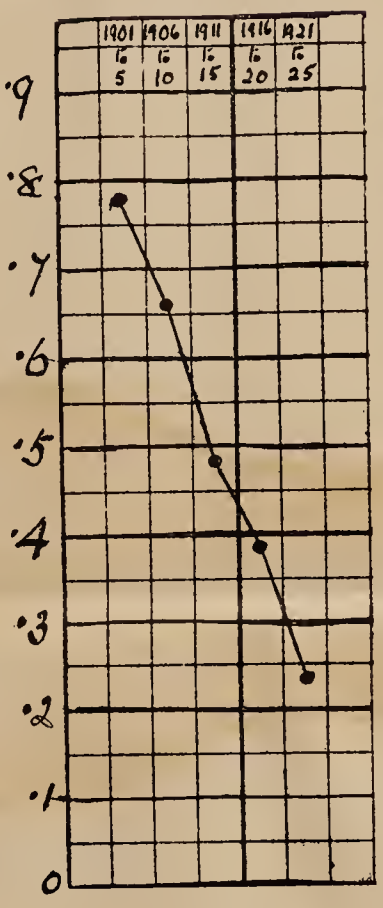
Co-operation with General Practitioners.

The relations of the Tuberculosis Department with the local doctors continue to be excellent, and there has been a very large increase in the number of suspected cases of tuberculosis sent to the Dispensary for diagnosis, 31 cases being sent up in 1923, as compared with 80 in 1925.

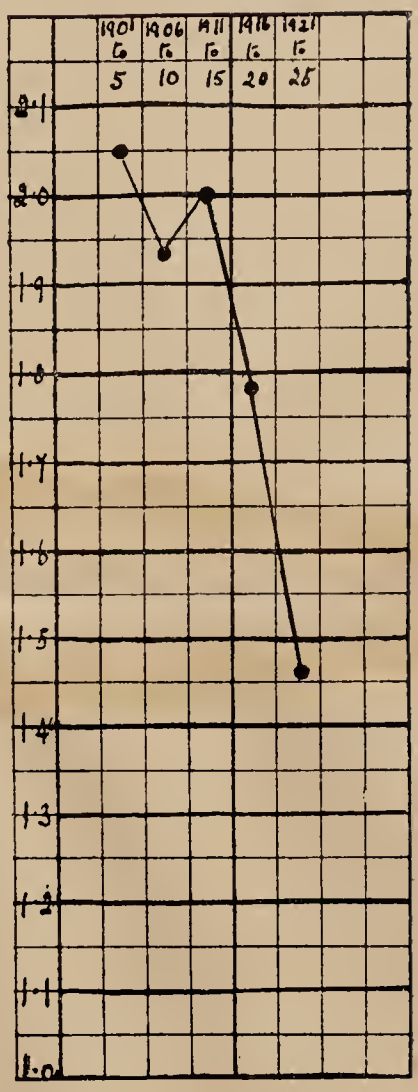
Pulmonary Tuberculosis Death Rate.



Non-Pulmonary Tuberculosis Death Rate.



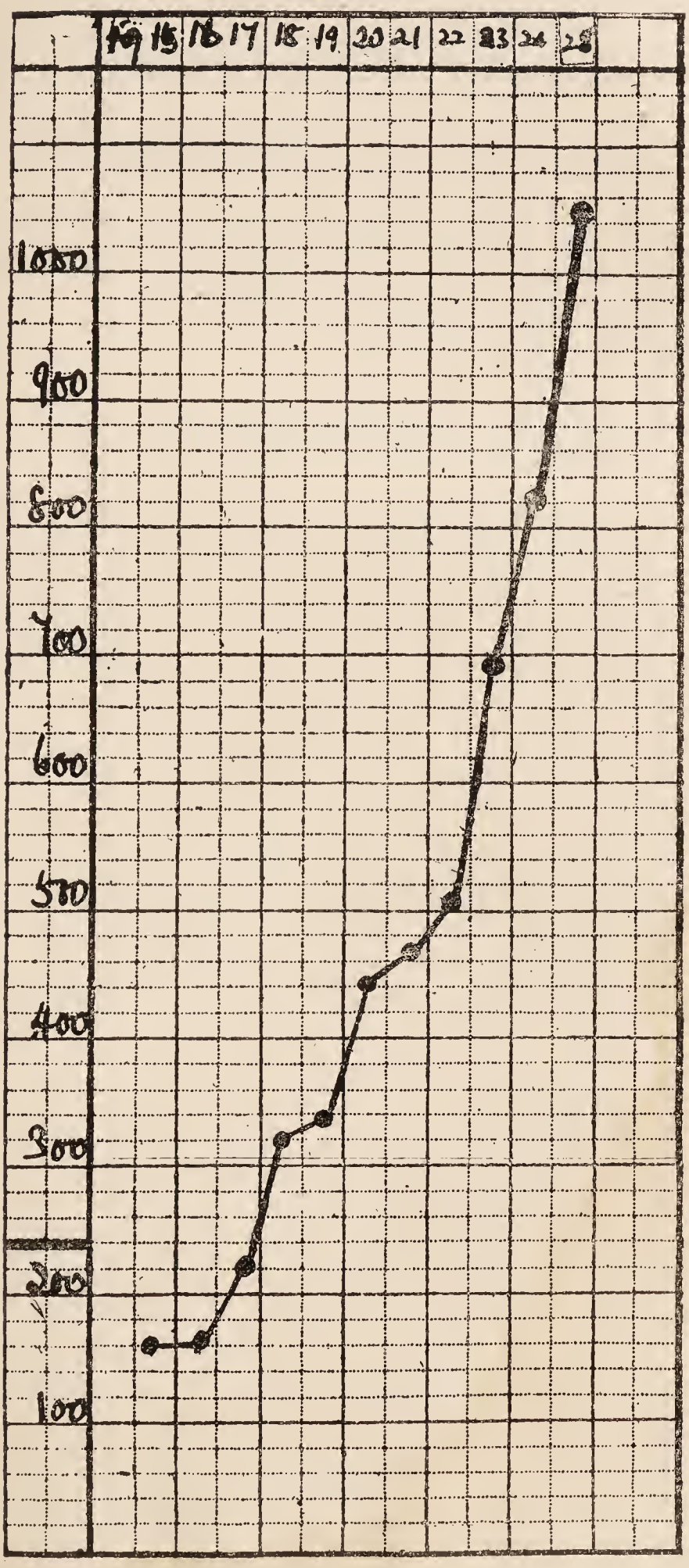
Death Rate from all forms of Tuberculosis.



The following table shows the deaths in 1925 divided into 5 year age-periods:—

Deaths		under 1	1—5	5—10	10—15	15—20	20—25	25—35	35—45	45—55	55—65	65 & up			
Pulmonary	M.	—	—	—	—	2	5	10	11	14	13	4	3	—	62
	F.	—	1	—	1	8	6	6	7	4	3	1	—	—	37
Total		—	1	—	3	13	16	17	21	17	7	4	—	—	99
Non-Pulmonary	M.	—	2	2	—	—	2	2	—	—	—	1	—	—	9
	F.	—	6	—	1	—	1	—	1	—	—	—	—	—	9
Total		—	8	2	1	—	3	2	1	—	—	1	—	—	18

Number of patients attending the Dispensary from 1915 to 1925.



The details of attendances in 1925 were as follows:—

	Adults.	Children.	Total.
Number of New Case ...	258	463	721
Number of Old Cases ...	246	80	326
Total attendances ...	1214	2077	3291

Out of these 721 persons examined for the first time:—

121 were notified cases;
80 were referred for diagnosis by general practitioners;
28 were referred by the Dispensary Staff;
23 attended of their own accord;
469 were "contacts."

Doubtful Cases and "Home Contacts."

To get in touch with the disease in its earliest stages, and thus to obtain the best results continuous systematic search is necessary. Special efforts are now being made to examine medically ALL children and as many adults as possible who have been in close contact with a definite case, and to keep under observation every suspicious case. It is not possible to examine all adult contacts, but the tuberculosis visitor on visiting a notified case notes any who appear or are stated to be delicate, and the majority of these have been persuaded to come to the Department for examination and advice. During 1925, 469 contacts were examined, and of these 7 were found to be tuberculous and 113 were sufficiently suspicious to be kept under observation. This side of the anti-tuberculous campaign is of the first importance, and it is hoped to develop it further in the future.

Work in the Homes.

For home visiting we have a staff of 1 male inspector and 1 nurse. On receipt of notification, the case is at once visited, arrangements are made for medical examination of the case and its contacts, and advice and assistance given as may be necessary. The Tuberculosis Officer occasionally visits the home when the case is unable to attend the Department, and in this connection 59 visits were made to 46 homes during 1925.

From the date of notification until the patient is quite well again, or in fatal cases until death, the case is kept under constant and regular supervision. Details of the visits made during 1925 by the Tuberculosis Inspector and nurse are here shown:—

	Pulmonary.	Non-Pulmonary.
Visits paid to homes of notified cases, for the purpose of making enquiries and giving advice	160	74
Visits paid to homes of notified cases, to ascertain progress of patient, if instructions are being carried out, &c., &c.	2539	915
Visits to arrange for disinfection and cleansing of homes after death or removals to institutions or another address	141	—
Miscellaneous visits, to doubtful cases, &c.	95	32
Total	2935	1021

AFTER CARE AND ARRANGEMENTS FOR FINDING EMPLOYMENT FOR PATIENTS.

Visiting.

Many of the visits in the tables are for the purposes of "after care." Cases that remain well and at work are advised to attend at the Dispensary at suitable intervals, special appointments being made, if necessary, to prevent a man having to stay away from his work. Cases that cannot leave home are visited frequently.

Employment.

When a patient becomes fit for work every effort is made to obtain suitable employment for him. If his previous occupation is suitable he is advised to apply to his former employer. If the occupation is unsuitable or the employer hesitates to take him back, the latter is approached personally by the T.O. or a member of the Dispensary Staff, and in a number of cases, suitable change of work in connection with the former employment has been arranged. We are much indebted to many employers in this town for so heartily co-operating with us in this matter.

In other cases the patient's name is sent to the Local Labour Exchange, and in the case of ex-service men to the Chief Area Officer of the Ministry of Pensions as well.

Beds, Bedding, &c.

We have received very valuable aid from the Council of Social Service, not only in the provision of beds and bedding for many patients who would otherwise not have been able to obtain them, but also in clothing for use in the Sanatorium, railway fares to hospitals, surgical appliances, &c. 40 cases were referred to them for assistance during 1925.

We have also to thank the local secretaries of the United Services and Red Cross Funds for much help, more especially for clothing, for financial assistance to the dependents of patients undergoing treatment, and for the institutional treatment of non-pulmonary cases. They have disbursed over £500 in this way during the year.

Other Work of the Tuberculosis Department.

Disinfection was carried out in 237 houses and portions of 26 houses were stripped and cleansed as precautionary measures in preventing spread of the disease. Sputum flasks and cups, and disinfectants were supplied for the use of patients as required.

Bacteriological examination of 341 specimens of sputum were made during the year for the purposes of diagnosis. During 1925, 992 certificates of various kinds were sent to the Ministry of Pensions in connection with ex-service men, 115 certificates were made out for the United Services and Red Cross Funds, and the T.O. attended 1 medical board on an ex-service man.

TREATMENT OF TUBERCULOSIS.

Provision of Home Nursing and Extra Nourishment.

In cases where the medical practitioner in attendance considers that a trained nurse is required, application is made to the Local District Nursing Association. In many instances our tuberculosis visitors point out the facilities for obtaining a nurse to the person in charge of a bedridden case, so that they can ask the opinion of their doctor as to the necessity of special nursing.

Various appliances, bedsteads, air cushions, &c., &c., are lent in necessitous cases, either direct from the Health Department, or in conjunction with the Guild of Help. When the home conditions are unsuitable, the patient is advised to enter an institution. If accommodation is available, he is taken into Hefferston Grange, if not, into Whitecross Infirmary. When cases require it we try and obtain extra nourishment for them, such as milk, virol, &c. During 1925, on the T.O's recommendation, 455 patients received 2,038 quarts of milk and 2 lbs. of virol, at a cost to the Tuberculosis Scheme of £51 6s. 5d. The Guardians and the Council of Social Service also provided a large number of cases with extra nourishment.

Provision of Open-air Shelters.

We do not provide shelters for patients, the lack of back-yard accommodation and the pail closets in use in the town render this form of treatment unsuitable.

Dental Treatment.

This can be obtained in the case of (1) children of school age, through the Dental Clinic, (2) some ex-service men, through the Ministry of Pensions, (3) some insured patients, through their approved society. There is still no scheme whereby dental treatment can be obtained for our tuberculous patients as a whole, and except in the case of those mentioned above they have still to go untreated.

Dispensary Treatment.

Two methods of treatment are being employed at the Dispensary:—

1. Anti-catarrh vaccine for those suffering from catarrhal conditions of the nose, so often associated with disease in the chest.
2. Tuberculin given percutaneously to quiescent or suspected case of tuberculosis living under bad conditions, and whose resistance is considered likely to break down.

The following tables show the details of treatment:—

Percutaneous Tuberculin.

Adults	...	4	Total attendances	...	49
Children	...	68	,, ,,	...	1267
		72			1352

Anti-catarrh Vaccine.

Adults	...	8	Total attendances	...	60
Children	...	4	,, ,,	...	39
		12			99

Sanatorium Treatment.

During 1925 340 cases were given sanatorium treatment, 334 being admitted to our Sanatorium, Hefferston Grange, and 6 to the British Legion Sanatorium and Village Settlement at Preston Hall in Kent.

We take a certain number of outside cases as well as our own at Hefferston Grange, and of the 334 admitted, 257 were Warrington cases, 40 were Cheshire County, 30 Lancashire County, 6 Wigan, and 1 St. Helens.

The following table shows the number of Warrington patients treated at our own Sanatorium compared to the total number in the town suffering from tuberculosis from the year 1921 to 1925:—

Year.	No. of cases notified.	No. of cases living in the town at the end of the year.	No. of cases treated at Hefferston Grange.	Percentage of living cases of pulmonary tuberculosis treated during the year.
1921	131	570	150	26.3
1922	164	627	197	31.2
1923	146	641	223	34.7
1924	148	594	248	41.7
1925	160	587	257	43.7

The following summary shows details of the patients in Hefferston each year from 1921 to 1925:—

Warrington—	1921.	1922.	1923.	1924.	1925.
Insured	124	145	174	183	178
Non-insured	24	46	31	32	33
School children	2	6	18	33	46
Total	150	197	223	248	257
Outside Cases—					
Lancashire C.C.	—	33	42	34	30
Cheshire C.C.	—	9	29	49	40
Wigan Corp.	—	—	—	10	6
St. Helens ,,	—	—	—	—	1
Total	0	42	71	93	77
Total of all cases	150	239	294	341	334

All types of case are admitted to Hefferston, the early with a view to cure, the late with a view to prevention. The following are the details of the 1925 admissions:—

Warrington—	Early	Pulmonary Cases Medium	Adv.	Observation	Non-Pul.	Total
Adults	104	54	26	17	10	211
School children	11	—	—	16	19	46
Lancashire C.C.	1	15	14	—	—	30
Cheshire C.C.	—	15	24	—	1	40
Wigan Corp.	3	2	1	—	—	6
St. Helens Corp.	1	—	—	—	—	1
Total	120	86	65	33	30	334

A certain number of cases as shown above are admitted for observation purposes. They are cases in which it is impossible to decide at the Dispensary whether they have tuberculosis or not. Of the 33 admitted, 5 were found to have tuberculosis and were retained for treatment

Urgent cases are admitted almost immediately or in a few days time; the average period of waiting for admission is about 3 weeks.

The accepted methods of Sanatorium treatment, rest, graduated exercise and a liberal diet, is carried out in our Sanatorium. This is supplemented in suitable cases with vaccines and tuberculin.

DIET.

A monthly dietary scheme has been introduced, and has proved very effective in avoiding the monotony of a weekly scheme.

The following list, showing the breakfasts and dinners, will give some idea of the feeding. Slight seasonal variations are made, and vegetables and fruit added as they become available:—

	Breakfast	Dinner.
Sun.	Fried eggs.	Boiled mutton and fig pudding.
M.	Hot bacon and beans.	Roast beef and sago pudding.
T.	Hot bacon.	Roast mutton and rennett and fruit.
W.	Cold ham.	Steak & kidney pie & steam bread pudding.
Th.	Hot bacon and beans.	Potato hash and semolina.
F.	Boiled eggs.	Fish and fruit and boiled rice.
S.	Haddock.	Steak & kidney pie & b'mange & custard.
Sun.	Hot bacon.	Roast beef and treacle pudding.
M.	Cold boiled bacon.	Roast mutton & bread & butter pudding.
T.	Poached eggs.	Salt beef and fruit and custard.
W.	Hot bacon and beans.	Steak & kidney pie & marmalade pudding.
Th.	Haddock.	Boiled mutton and cho. B.M. & custard.
F.	Fried eggs.	Fish and sago.
S.	Hot bacon and beans.	Potato hash and ginger pudding.
Sun.	Cold ham.	Roast mutton and ground rice.
M.	Hot bacon.	Salt beef and currant pudding.
T.	Boiled eggs.	Boiled mutton and rennet and fruit.
W.	Hot bacon and beans.	Steak and kidney pudding and sago.
Th.	Cold boiled bacon.	Potato hash and fig pudding.
F.	Poached eggs.	Fish and tapioca.
S.	Cold ham.	Steak & kidney pie & steam bread pudding.
Sun.	Hot bacon and beans.	Salt beef and choc. B.M. custard.
M.	Boiled eggs.	Boiled mutton and jam roll.
T.	Hot bacon.	Roast beef and ground rice.
W.	Cold ham.	Potato hash and treacle pudding.
Th.	Hot bacon and beans.	Steak & kidney pud. & bread & butter pud.
F.	Haddock.	Fish and blancmange and fruit.
S.	Cold boiled bacon.	Salt beef and rice.

258 cases left the Sanatorium in 1925, and the following table shows the results of their treatment:—

	Early.	Medium.	Advanced.	Observ.	Non-Pul.	Total.
Quiescent	61	17	3	—	14	95
Improved	30	22	13	—	10	75
No material improvement	7	15	18	—	4	44
Died in Sanatorium ...	2	4	14	—	—	20
Observation cases—						
Tuberculous ...	—	—	—	5	—	5
Not tuberculous	—	—	—	19	—	19
	100	58	48	24	28	258

Average duration of treatment in these 258 cases.

	Weeks.	Days.
All cases	16	—
Early cases	15	3
Medium cases	17	2
Advanced cases	15	6

The longest period of treatment was 75 weeks among the early cases, 70 weeks among the medium, 57 weeks among the advanced cases.

Fitness for work of the 193 Warrington cases discharged from Hefferston during 1925 (particulars made up to 31/12/25):—

	M.	F.
Worked regularly since discharge ...	33	23
Fit for work on discharge	35	2
Not fit for work on discharge	35	11
School children attending school since discharge	12	9
School children not attending school since discharge	5	7
Died since discharge	14	7

Summary of progress of the 76 cases still in Sanatorium at the end of 1925:—

	Early.	Medium.	Advanced.	Observation.
Improving	20	20	4	—
Not improving... ...	—	3	11	—
In statu quo	2	5	2	—
Observation cases ...	—	—	—	9
Total	22	28	17	9

After discharge from the Sanatorium the cases are kept under observation by the tuberculosis visitors, and are asked to visit the Tuberculosis Department from time to time for medical examination.

From August, 1910, to December, 1925, 1,351 Warrington patients have received treatment. Of these 710 are living and 641 are dead.

Among the 1,351 patients, 1,014 were admitted once, 201 twice, 65 three times, and 71 more than three times.

RECREATION.

Recreations and amusements play no inconsiderable part in smoothing the way to recovery during sanatorium treatment. Our institution is fortunate in possessing a billiard table, and a large recreation hut equipped with games, and a well-assorted library. We are greatly indebted to the British Red Cross Society and to many private individuals in the Borough for gifts of books and periodicals.

During 1924 various concert-parties from Warrington visited the Sanatorium and proved a great boon. Their visits have been almost entirely discontinued for over a year now, and this is a loss keenly felt by the patients. The installation of a wireless set with loud speakers, now a commonplace of equipment in sanatoria, would, however, more than make up for the deficiency.

EXPENSES.

The following table, extracted from the Ministry of Health Returns, comparing the expenses of our Sanatorium during 1925 compared with those of six other local authorities, brings out some interesting points. The six other sanatoria are of approximately the same size and take the same type of case as Hefferston Grange:—

Authority.	% of beds occupied.	Per patient per week. Food.	Drugs.	Fuel and light.	Laundry.
		s. d.	s. d.	s. d.	s. d.
Warrington (Hefferston) ...	100	16 0.7	0 10.4	4 7.8	0 5.6
Huddersfield (Bradley Wood)	87.8	15 1.9	2 0.5	5 7.8	1 0.1
Stoke-on-Trent (Stamfield) ...	88.0	10 10.9	1 1.4	5 3.9	0 11.2
Newcastle-on-Tyne (Barrasford)	76.6	17 8.6	0 10.5	4 5.3	0 9.0
St. Helens (Eccleston Hall)	99.3	16 11.2	0 9.9	3 9.4	2 2.5
Birmingham (Salterley Grange)	89.7	15 7.2	0 5.9	5 4.4	1 6.3
E. Sussex (Darnell Hall) ...	95.0	18 2.4	1 3.9	3 1.3	2 10.9

The most noticeable features in the above table are:—

(1) that the beds at our Sanatorium are kept continuously occupied, i.e., that the fullest use is made of the accommodation provided;

(2) the small expenditure on drugs and laundry.

Warrington Patients at the British Legion Village Settlement.

During 1925, 6 tuberculous ex-service men were admitted to this settlement at Preston Hall, Aylesford, Kent. These patients are first sent into the sanatorium there, and when fit are passed thence to the Training Colony, where they are taught a suitable trade. From there they are transferred to the Settlement Village, where they live, with their wives and families, if married, working under medical supervision at the occupation in which they have been trained.

Our past experience of such training colonies for ex-service men has not been very encouraging. Since 1920, 10 tuberculous ex-service men have left various training colonies as shown below:—

Training Colony.	Occupation taught.	Number.
Delamere	House repairs and woodworking	3
,,	Watch and clock repairing	3
Birmingham	Metal working	1
Beverley	Gardening	1
Blackpool	,,	1
Walsingham	Furniture repairing	1

Of these 10 cases, 3 completed the course and 7 left of their own accord or were discharged for various reasons before the completion of the course.

Of the 3 cases that completed the course not one of them has followed the work in which they were trained. A perusal of the reports of other authorities will show that this is the common experience.

While undergoing training each man receives full treatment allowances and is eligible for certain periods of leave, and on satisfactory completion of training he is entitled to a bonus and a grant from the Ministry of Pensions.

NON-PULMONARY TUBERCULOSIS.

As a rule, the cripple is made not born, and although there is a high incidence of causes in the first few years of a child's life, it is true that 80% to 90% can be cured, or at any rate, improved sufficiently to enable patients to lead useful lives, provided they are dealt with effectively, sufficiently early.

There are many causes of crippling—rickets, infantile paralysis, injury, &c., but of all, non-pulmonary tuberculosis is probably the greatest.

The commonest forms of this latter disease are manifested in tuberculosis of the spine (giving us our "hunch backs") and tuberculosis of the hip joint (giving us our lame cripples with one limb much shorter than the other), but in addition, practically any bone or joint in the body may be affected, as also glands in the neck, in the chest or in the abdomen. Various skin diseases, such as lupus, too, are tubercular in origin. Most of these forms, although not immediately fatal, lead to years and years of pain and suffering unless adequately treated, whereas if taken in time, in the majority of cases, not only can this be avoided but the subsequent deformity almost entirely prevented.

Our knowledge of the treatment of all forms of crippling advanced tremendously during and just after the Great War, with the result that the necessity for large Orthopædic Hospitals to serve every area is becoming more and more recognised.

General hospitals are far from able to deal effectively with cripples. They have great pressure on their beds owing to the number of acute cases they have to deal with, whereas treatment for deformity may necessitate the use of a bed for months, and even years for the one case.

Again, the type of building and its site are unsuitable. An institution on open-air principles is essential, to which the patients must be sent, or amputations or excisions of joints may have to be performed, for the time and general conditions which favour healing cannot be supplied.

Even if it were practicable to set aside beds in general hospitals for the prolonged treatment of these cases, it is not desirable as a rule, as the cost per bed per week is much in excess of that of a county open-air hospital. This does not mean that a certain amount of preliminary treatment of some cases cannot be undertaken in a general hospital.

In the past, we in Warrington have been enabled to obtain treatment for many of our urgent cases, through the good offices of charitable bodies, such as the Guild of Social Service, the Red Cross Fund, the United Services Fund, &c., and in many instances the voluntary hospitals have themselves dealt with them direct without charge. In these cases in the past, however, there has often been unavoidable delay which has proved detrimental. In addition, now almost without exception, all institutions have demanded payment for dealing with cases of surgical tuberculosis.

During 1925 a scheme was submitted to the Council to provide facilities for the treatment of surgical tuberculosis. It consisted of the provision of

(1) beds in the special Orthopædic Hospital at Leasowe;
(2) beds in general surgical hospitals;
(3) arrangements for dealing with cases at the Manches- and Salford Skin Hospital;
(4) use of X-rays for diagnostic purposes;
(5) travelling facilities, provision of apparatus, etc., for necessitous cases.

The estimated annual cost was about £1,715, of which the Ministry of Health would refund half if the scheme was approved.

As I mentioned previously, there are other forms of crippling than tuberculosis, and the Corporation are tackling a large part of this through the Education Authority with their scheme of an Orthopædic Centre at Whitecross, which will deal with all children of school age.

There will then only be left a small group of children under 5 years of age suffering from crippling ailments other than tuberculosis. These will ultimately be roped into the scheme under the auspices of the Maternity and Child Welfare Committee.

VENEREAL DISEASES.

Our scheme for dealing with these diseases was brought into operation during March, 1917, and was described in detail in the Annual Report for that year

The main measures are:—

1. Provision of facilities for free diagnosis of cases of venereal disease.
2. Provision of free treatment under conditions of secrecy.
3. Provision of salvarsan substitutes free of charge for treatment.
4. Education of the public.

The work done in this direction during 1925 is considered under these headings, and some remarks by Dr. E. T. Burke on the general working of the scheme since its inception follows:—

1. Facilities for Diagnosis.

(*a*) Wasserman Blood Tests.

These are performed by Professor Topley at his laboratory in Manchester.

The number of examinations for 1925 is shown as follows:—

	Positive.	Negative		
Specimens taken by General Practitioners...	2	8	...	10
,, ,, at the Treatment Centre ...	45	83	...	128
,, ,, ,, Health Department	1	37	...	38
,, ,, ,, Maternity Home ...	5	115	...	120
Total	53	243		296

(*b*) Bacteriological Examinations.

These are made at our own Laboratory at the Health Department, Sankey Street.

The number of examinations for the organisms causing Syphilis and Gonorrhœa, made during 1925, were:—

	Spirochætes		Gonococci.		Total.
	found	not fonnd	found	not found	
Specimen submitted by general Practitioners...	...	...	11	32	43
Specimen submitted from Clinic	...	...	32	65	97
Specimen submitted from Maternity Home ...	...	...	4	28	32
Total	...	...	47	125	172

The figures for previous years in comparison are:—

	1925.	1924.	1923.	1922.	1921.
No. of examinations ...	172	71	81	81	126

2. Free Treatment.

The Centre at the Local Infirmary (Beamont Street Entrance) has been carried on as usual during the year by Dr. E. T. Burke, D.S.O., at the following hours:—

Men ...	Tuesdays, 3.30 p.m.	Fridays, 6 p.m.
Women ...	,, 5. 0 p.m.	,, 4.30 p.m.

The following table summarises the work done in 1925 compared with the previous year:—

County or County Borough.	No. of Attendances at Out-patient Clinic			No. of Doses of Salvarsan Substitutes used at Centre.	
	1925	1924		1925	1924
Warrington ...	1054	1583	...	175	448
Lancashire ...	403	223	...	18	45
Cheshire ...	219	138	...	39	12
Other	5	-	...	—	—
Totals ...	1681	1944	...	232	505

Further particulars are given in the statistical summary that follows:—

RETURN RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT WARRINGTON DURING THE YEAR ENDED THE 31ST DECEMBER, 1925:—

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than Venereal.		TOTAL.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of cases which, on the 1st January, 1925, were under treatment for:—	59	31	...	...	27	15	3	2	89	48
1b. Number of cases marked off in a previous year as having ceased to attend or as transferred to other centres, and which returned to the Treatment Centre during the year under report, suffering from the same infection	2	1	...	...	1	1	...	...	3	2
2. Number of cases dealt with during the year at or in connection with the out-patient Clinic *for the first time* and found to be suffering from	29	19	...	...	30	17	20	21	79	57
TOTAL, Items 1, 1b, and 2 ..	90	51	...	..	58	33	23	23	171	107
3. Number of persons who ceased to attend the out-patient Clinic (*a*) Befor completing a course of treatment for	7	5	...	...	2	4	...	...	9	9
(*b*) After completion of a course of treatment, but before final tests as to cure of	2	1	...	...	4	1	...	...	6	2
4. Number of persons transferred to other Treatment Centres after treatment for	1	...	...	...	3	...	...	...	4	...
5. Number of persons discharged from the out-patient Clinic after completion of treatment and observation for	20	12	...	...	24	10	20	16	64	38
6. Number of persons who, on the 1st January, 1925, were under treatment or observation for ..	60	33	...	...	25	18	3	7	88	58
TOTAL, Items 3, 4, 5 and 6 ..	90	51	...	...	58	33	23	23	171	107
7. Total attendances of all persons at (*a*) The out-patient Clinic who were suffering from ..	714	537	...	...	254	51	60	65	1028	653
(*b*) For intermediate treatment, e.g., irrigation, dressing, etc.	...	...	...	...	1319	405	...	...	1319	405
TOTAL ..	714	537	...	...	1573	456	60	65	2347	1058
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from	39	...	...	...	...	20	...	...	39	20

9. Examinations of Pathological material :—	For detection of			For Wasserman Reaction.
	Spirochetes.	Gonococci.	Other Organisms.	
(*a*) Specimens which were examined at, and by the Medical Officer, of, the Treatment Centre	...	...	...	...
(*b*) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory	..	97	...	128

Statement Showing the Services Rendered at the Treatment Centre During the Year, Classified According to the Areas in which the Patients Reside.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England or Wales).	Warrington	Lancashire	Cheshire	Other	Total.
A. Number of persons from each area dealt with during the year at or in connection with the out-patient Clinic *for the first time* and found suffering from :—					
Syphilis	28	7	12	1	48
Soft Chancre	...	...	...	...	...
Gonorrhœa	31	8	6	2	47
*Conditions other than venereal ...	34	3	4	...	41
Total ..	93	18	22	3	136
B. Total number of attendances at the out-patient Clinic of all patients residing in each area	1054	403	219	5	1681
C. Aggregate number of "In-patient days" of all patients residing in each area ..	20	...	39	...	59
D. Number of doses of Salvarsan substitutes given in the : 1. Out-patient Clinic	175	18	39	...	232
D. Number of doses of Salvarsan substitutes given in the : 2. In-patient Dept.	...	...	...	...	...

*Including cases stated to have been treated in Army or otherwise for V.D., and in whom provocative tests proved negative.

3. Provision of Salvarsan Substitutes.

The amount and kind of Salvarsan substitute supplied during 1925 is shown in the following table:—

		gramme.		
(*a*) To Private Practitioners—				
Novarsenobillon	0.6	=	2*	doses.
Stabilarsan	0.3	=	2	,,
,, ...	0.45	=	6	,,
,, ...	0.6	=	21	,,
(*b*) To Maternity Home—				
Stabilarsan	0.45	=	8	,,
,, ...	0.6	=	11	,,
(*c*) To Treatment Centre—				
Stabilarsan	0.15	=	31	,,
,, ...	0.3	=	65	,,
,, ...	0.45	=	71	,,
,, ...	0.6	=	40	,,
Kharsulphan	0.15	=	30	,,
,, ...	0.3	=	2	,,
,, ...	0.45	=	9	,,
,, ...	0.6	=	10	,,
			308	doses

(Compared with 282 doses in 1919, 230 doses in 1918, and 131 in 1917.)

* These are the quantities supplied by us, and are not necessarily the doses administered to patients, as these quantities may be split up at the time of use. The actual number of doses given to patients at the Treatment Centre is shown on page 95.

4. Education of the Public.

During Health Week each year a large proportion of the programme has been devoted to propaganda work against these diseases, and we have been fortunate in securing the services of Mr. Bowen Partington as lecturer.

All the most recent films on the subject have been exhibited to large audiences at the Parr Hall.

In addition all through the year steady educational work has been carried on both at the Clinic and at the Health Department by the officers of the Local Authority.

Special leaflets have been distributed in large numbers, and the hours of free consultation at the Clinic have been well advertised throughout the town.

Graph No. 1 based on Table No. 1.

Total number of New Cases each year from 1917 to 1925—Black.

Annual average for each three yearly periods—Red.



I am indebted to Dr. E. T. Burke, D.S.O., for the following:—

REVIEW OF THE WORK DONE AT THE V.D. TREATMENT CENTRE OF THE COUNTY BOROUGH OF WARRINGTON, 1917 TO 1925.

The term of 8 years in which the Centre has been in existence may conveniently be divided into three periods:—

(1) 1917 to 1919—War period.
(2) 1920 to 1922—Post-War period.
(3) 1923 to 1925—Peace period.

This division, chosen with reference to the Great War, has been adopted because the modern problem of V.D. and the scheme which was instituted as a means towards its solution, are closely related to that war. Although each of the above periods is not sharply demarcated from the others, yet when each is viewed as a whole it will be found to possess several distinct and differentiating social, economic and other characteristics. These bear very importantly upon the incidence of V.D. in the community. The work will be surveyed under several heads:—

(1) New patients.
(2) Attendances.
(3) Absentees.
(4) In-patients.
(5) Cures.
(6) Therapy.
(7) Routine.
(8) Research.

New Patients.

The following tables do not, since Venereal Diseases are not notifiable, give an accurate index as to the incidence of syphilis and gonorrhœa in the community. They merely show the incidence of new cases attending at theTreatment Centre.

Table I.

Total numbers of new cases of V.D.

War					Post-War					Peace				
1917	1918	1919	Total		1920	1921	1922	Total		1923	1924	1925	Total	
68	91	143	302	...	121	121	141	383	...	143	122	95	360	
Annual average 100					Annual average 128					Annual average 120				

Table II.

War period (1917-1919).

Analysis of New Patients, showing sex and disease.

Year——	1917			1918			1919		
Sex——	M.	F.	Total	M.	F.	Total	M.	F.	Total
Disease									
Syphilis	31	22	53	38	29	67	59	30	89
Gonorrhoea	15	—	15	19	5	24	38	14	52
Chancroid	—	—	—	-	—	—	2	—	2
Total	46	22	68	57	34	91	99	44	143

Table III.

Post-War period (1920-1922).

Year——	1920			1921			1922		
Sex——	M.	F.	Total	M.	F.	Total	M.	F.	Total
Disease									
Syphilis	46	28	74	48	34	82	52	25	77
Gonorrhoea	30	16	46	31	7	38	39	23	62
Chancroid	1	—	1	1	—	1	2	—	2
Total	77	44	121	80	41	121	93	48	141

Table IV.

Peace period (1923-1925).

Analysis of New Patients, showing sex and disease.

Year——	1923			1924			1925		
Sex——	M.	F.	Total	M.	F.	Total	M.	F.	Total
Disease									
Syphilis	46	28	74	41	19	60	29	19	48
Gonorrhoea	40	29	69	31	31	62	30	17	47
Chancroid	—	—	—	—	—	—	—	—	—
Total	86	57	143	72	50	122	59	36	95

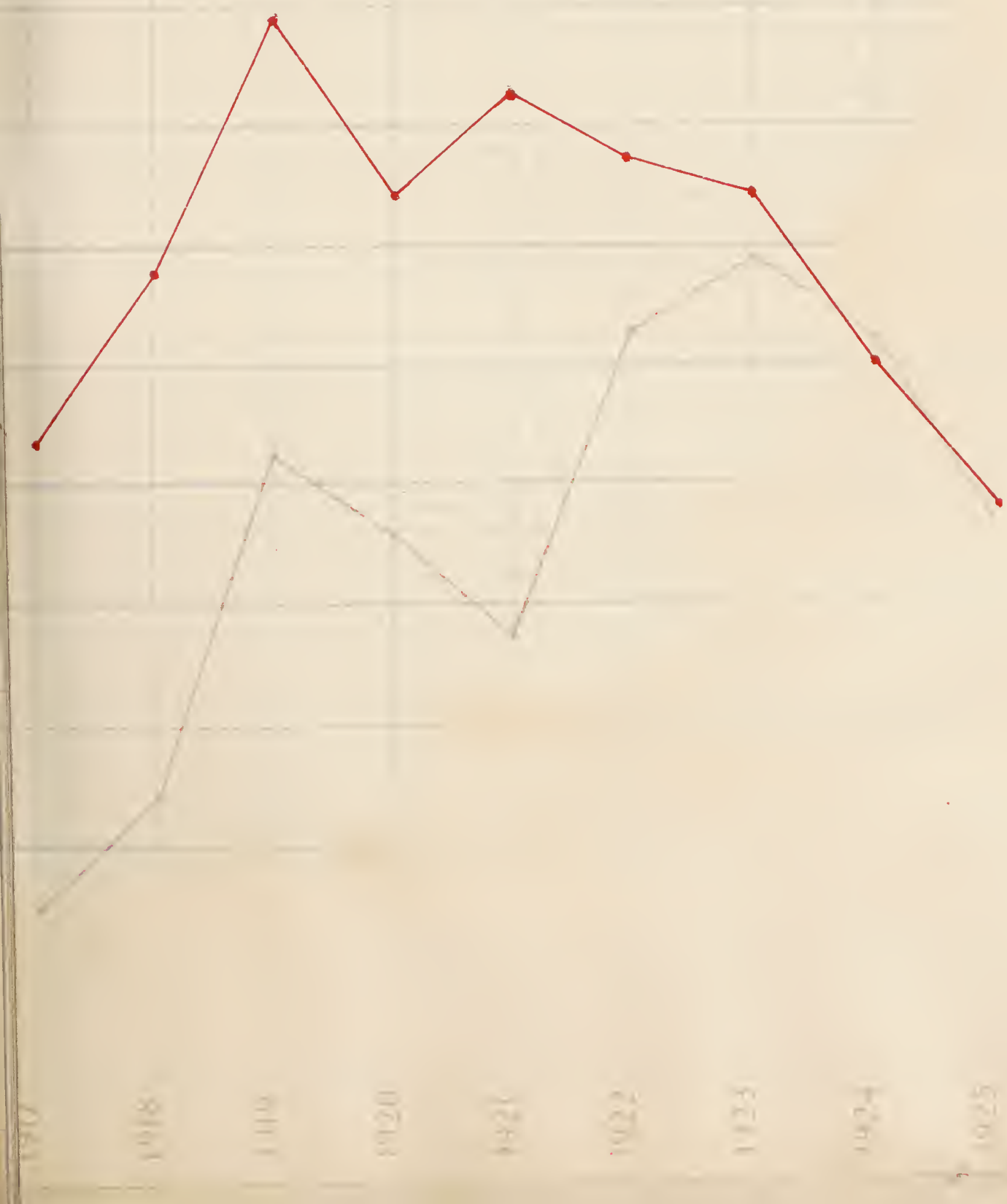
War Period 1917-1919.

In examining the figures for this period several facts must be kept in mind. The V.D. scheme had just been formulated, and the Treatment Centre was only opened in 1917. The whole idea was new, and was not well known either to the public or to the local medical practitioners. The bulk of the male population between the ages of 18 and 45 were in the Services, and consequently those who were venereally infected were not being treated in the civil hospitals. The reservoir of V.D. is the civil population. It is from there that V.D. reaches the Services, but up to 1917 no

Graph No. 2 based on Tables II., III. and IV.

Total number of New Cases of Syphilis each year from 1917 to 1925—Red.

Total number of New Cases of Gonorrhœa each year from 1917 to 1925—Black.



effort was being made to dilute the amount of infection in this reservoir. It was to be expected that at least 2 years would elapse before the general public would appreciate and make full use of the new facilities for diagnosis and treatment. The 143 new patients recorded in 1919—an increase of 75 over the 1917 figure—is due to this partly and partly to the fact that demobilisation was in progress, and a great number of men suffering from V.D. in various stages were again returning to civil life. These now began to put in an appearance at the Treatment Centre, either to complete their treatment or to be tested as regards cure.

The amount of information given to men in the Services concerning V.D. must now have been making itself felt among the general civil population, and this, coupled with the excellent propaganda work carried out by various organisations and by the Public Health Authority, must have contributed towards increasing the number of new cases attending. In addition, there must also be considered the fact that there was an undoubted increase in the actual amount of V.D. during the period. War and demobilisation invariably have this effect.

An examination of the figures in Table II. will show that the number of male new patients is double that of females. This problem of getting the women under treatment is still with us, and would appear to be one, partly of a difficulty of diagnosis and partly of female diffidence. Table II. shows that this is most marked as regards female gonorrhœa.

Post-War Period, 1920-1922.

The annual figures of new cases for the first 2 years of this period show a drop on that for 1919. This is to be expected, for things had now become—to a certain degree—stabilised. The rush of new cases from the Services had ceased. At the beginning of 1922 the Treatment Centre was re-organised and certain structural alterations which conduced to the comfort and privacy of patients were instituted. Special efforts were also made at this time to trace the marital partners and the children of patients, and to get these to attend. This probably accounts for the figures 141 in 1922. The ratio, however, of males to females is still about two to one.

The figure for female gonorrhœa in 1922, i.e., 23, shows a great improvement.

Peace Period, 1923-1925.

The fall from 143 in 1923 to 122 in 1924, and to 95 in 1925, probably demonstrates that the effect of the war-time increase is wearing off, and also that the work of the Treatment Centre is such that by rapidity and certainty of cure, the spread of these diseases is being greatly curtailed. The ratio between males and females is also better, being less than two to one. The number of females suffering from gonorrhœa is also higher, and in that it probably represents a truer picture.

II. Attendances.

Table V.

Total attendances of all cases.

War period			Post-War Period			Peace period		
1917	1918	1919	1920	1921	1922	1923	1924	1925
364	713	1283	3689	2364	2901	4816	3778	3305
Average 786			Average 3018			Average 3966		

Table VI.

War period.

Total attendances analysed according to sex and disease.

Year——	1917			1918			1919		
Sex——	M.	F.	Total	M.	F.	Total	M.	F.	Total
Disease									
Syphilis	169	93	262	387	224	611	540	346	880
Gonorrhoea	91	—	91	63	12	75	173	46	219
Chancroid	—	1	1	—	—	—	6	—	6
Totals	260	94	354	450	236	686	719	386	1105

Table VII.

Post-War Period.

Total attendances analysed according to sex and disease.

Year——	1920			1921			1922		
Sex——	M.	F.	Total	M.	F.	Total	M.	F.	Total
Disease									
Syphilis	900	440	1340	915	767	1682	1338	698	2036
Gonorrhoea	1599	544	2143	430	231	661	525	245	770
Chancroid	9	—	9	1	—	1	12	—	12
Totals	2508	984	3492	1346	998	2344	1875	943	2818

Graph 3.

Total number of New Cases each year from 1917 to 1925 (according to sex), Males—Red; Females—Black.



Table VIII.

Peace period.

Total attendances analysed according to sex and disease.

Year——	1923			1924			1925		
Sex——	M.	F.	Total	M.	F.	Total	M.	F.	Total
Disease									
Syphilis	968	598	1566	811	748	1559	714	537	1251
Gonorrhoea	414	210	624	144	99	243	254	51	305
Chancroid	—	—	—	—	—	—	—	—	—
Totals	1382	808	2190	955	847	1802	968	588	1556

Table XI.

Intermediate attendances for Gonorrhœa.

	1917	1918	1919	1920	1921	1922	1923	1924	1925
Males	—	—	—	—	—	3259	1735	1459	1319
Females	—	—	—	—	—	1257	804	375	405
Totals	—	—	—	—	—	4516	2539	1834	1724

Absentees.

Approximately 30 per cent. of patients do not complete their treatment. The only real remedy for this is that some element of compulsion should be introduced into the scheme.

In-Patients.

Table.

In-patient days.

	1917		1918		1919		1920		1921		1922		1923		1924		1925	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syph.	234	82	197	83	14	49	40	—	5	3	—	—	—	—	12	—	39	—
Gon.	5	—	10	6	—	—	20	49	—	—	—	—	—	—	56	63	—	20
Totals	239	82	207	89	14	49	60	49	5	3	—	—	—	—	68	63	39	20

The high numbers for Syphilis in the early days was probably due to the toxicity of the drugs used.

Table.

Cures.

	1917		1918		1919		1920		1921		1922		1923		1924		1925	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syph.	5	1	16	4	3	2	—	—	2	1	16	3	7	4	6	4	20	12
Gon.	6	—	12	—	9	2	8	—	—	—	12	3	4	2	4	1	24	10
Totals	11	1	28	4	12	4	8	—	2	1	28	6	11	6	10	5	44	22

VI. Therapy.

The drugs in routine use are Stabilarsan, Bismostab, and Potassium Iodide. In addition, Kharsulphan and Sulfarsenol are used in certain cases. The use of Mercury in Syphilis has been entirely given up since 1923.

Table.

Doses of drugs injected.

	1917	1918	1919	1920	1921	1922	1923	1924	1925
Kharsivan	100	—	—	—	—	—	—	—	—
Galyl.	3	—	—	—	—	—	—	—	—
Neo. Kharsivan	—	95	—	—	—	—	—	—	—
N.A.B.	—	—	475	864	945	1033	—	—	—
Stabilarsan	—	—	—	—	—	—	857	505	232
Neo. Trepol.	—	—	—	—	—	—	108	—	—
Intramine	—	—	—	—	—	—	1	4	—
Bismostab	—	—	—	—	—	—	—	207	1574
Kharsulphan	—	—	—	—	—	—	—	—	24
Sulfarsenol	—	—	—	—	—	—	93	21	9

Table.

Pathological examinations at Laboratory.

	1917	1918	1919	1920	1921	1922	1923	1924	1925
Wass.	52	86	155	239	257	133	123	82	128
Gonorr.	10	19	29	89	49	18	69	107	138

The reason for the decrease in the number of Wasserman tests from 1921 is due to the fact that since that date, once a patient is put under treatment for Syphilis, no serological test is done until he has undergone at least 6 months' treatment.

Routine Treatment.

Up to the present from 1924, the following has been adopted as standard treatment for Syphilis:—

8 weekly I.V. injections of Stabilarsan.
16 bi-weekly I.M. injections of Bismostab.
8 weekly I.V. injections of Stabilarsan.
16 bi-weekly I.M. injections of Bismostab.

Further treatment depends upon the serological tests.

This standard is now being altered slightly.

The routine treatment for Gonorrhœa is still that laid down in the former report.

ORIGINAL WORK.

The bulk of the information laid before Lord Trevethin's Committee of Inquiry into Venereal Disease by the M.O. of the Clinic was obtained from the patients attending this Treatment Centre. This Clinic was the first in the country to experiment with the new Bismuth preparations, and the result of the work is embodied in the Review on Bismuth Therapy in Syphilis in No. 1 of the British Journal of Venereal Diseases.

Dr. Ellis Piggott, of Manchester, has been engaged as Deputy and Assistant M.O. of the Treatment Centre, upon an enquiry into the influence of protein therapy upon the Wasserman Test. The results have not yet been published.

At present some cases of Congenital Syphilis are under the care of Dr. Campbell, who is treating them with inunctions of Colloidal Bismuth Cream. From these and other cases one gains the impression that the therapeutic results are, if anything slightly better than with mercurial inunctions.

A good many cases of syphilitic interstitial keratitis have been referred to the Clinic for treatment. It has been found that the results obtained by the intramuscular injection of metallic bismuth have been little short of marvellous, and vastly better and more rapidly brought about than with arsenobenzol.

Several cases of G.P.I. have been sent to the asylums for malarial treatment, but, probably owing to the cases not being sufficiently early, the results have not been encouraging. Treparsamide has not yet been taken into routine use.

The most recent compound—Bistovol—is at present being tried upon a series of patients, but it is too early yet to judge of the results. The duties of the staff have been most efficiently carried out by Sister Cunningham, the various nurses, and by Mr. Dalton. The latter is in charge of the irrigation department for the intermediate treatment of gonorrhœa in the male.

I must express my sincere appreciation of the enthusiastic and painstaking work of Dr. Piggott and of Dr. Campbell. The bulk of the treatment of female gonorrhœa patients is in Dr. Campbell's hands, and she has been most valuable in the important work of ante-natal treatment. In order to bring the treatment of gonorrhœa—especially in the female—up to date, a Diathermy Apparatus is necessary. The cost of this is in the region of £50 (fifty pounds). I would recommend that this be purchased.

The General Practitioners of the area served by the Treatment Centre are taking full use of the facilities provided. To every doctor who sends a patient a report is made as to his condition, and the treatment administered.

A great many cases of diseases, query V.D., have been sent for diagnosis. These are principally skin conditions. When these are treated by the V.D. staff, the cost is borne not by the V.D. Department, but by the ordinary Out-patient Department of the Infirmary.

Looking over the whole period, the work has been extremely satisfactory, the only trouble being that one feels that only the fringe of the V.D. in the area is being touched. What is called for is the earlier diagnosis by the General Practitioner, and for him to send his patients to the Treatment Centre at once. Too often still do we find that a patient with Syphilis has been treated for months with Mercury and Potassium Iodide, which would have done him as much good if it had been rubbed on his boots. Sometimes gonorrhœa cases do not arrive at the Clinic till a complication like epididymitis occurs, after the patient has swallowed a pint or two of "Copaiba mixture." Early diagnosis and early and modern treatment are required. One still feels, however, that until there is in the scheme some element of compulsion a good deal of time and money will be wasted.

The staff of the Clinic are always anxious to give any advice or tuition to any practitioner in the area upon the modern treatment of Venereal Disease.

In conclusion I would express my thanks to the Medical Officer of Health, and to the Health Committee, for the favourable way in which they have complied with any recommendations I have made.

(Signed) E. T. BURKE, M.B.,
M/O In/c V.D. Treatment Centre.

26/6/26.

MATERNITY AND CHILD WELFARE WORK.

The various causes of death in mothers and infants have been considered on pages 19 to 22.

The measures that have been adopted to attempt to diminish the mortality and permanent injury to health due to these causes are grouped under the heading Maternity and Child Welfare Work, though it must not be forgotten that all our general sanitary measures, in so far as they deal with the home, have a more potent effect on the mother and the child than on any other section of the community.

This department of the work—in accordance with the Act of 1918—is controlled by a special Maternity and Child Welfare Committee, composed of the members of the Health Committee, together with two ladies (Mrs. Hazeldine and Mrs. Langdale) specially co-opted for the purpose.

The arrangements made in this Borough for attending to the health of expectant and nursing mothers and children under five years of age, include the following branches:—

1. The supervision of the midwifery service under the Midwives Acts of 1902 and 1918.
2. The work of the Health Visitors in the homes, including the administration of the Notification of Births Acts.
3. Consultation Centres for mothers and children, together with treatment for certain minor ailments.
4. Ante-natal supervision of and consultations for Expectant Mothers.
5. Maternity Home for institutional treatment of mother before, during or after labour.
6. Hospital accommodation for mothers suffering from—
 (a) Puerperal Fever.
 (b) Venereal Diseases during pregnancy.
7. Hospital accommodation for infants and children suffering from—
 (a) Measles or Whooping Cough.
 (b) Marasmus, Debility and Dietetic Ailments.
 (c) Ophthalmia Neonatorum.
8. Home nursing of cases of Measles, Whooping Cough or Pneumonia, arising from these diseases, Puerperal Fever, Ophthalmia Neonatorum, and Epidemic Diarrhœa.
9. Supply of milk to expectant and nursing mothers, and to children under five years of age.
10. Supervision of children put out to nurse and of illegitimate children.

Before considering the work under each of the above headings I will briefly review the progress made during the past five years. The most important part of all has been the establishment of an ante-natal clinic for expectant mothers on the premises of the Dispensary behind the Health Department in Garven Place. Some remarks on this are given on page 113.

The work of the consultation centres has increased enormously. The number of consultations held by the Medical Officer have increased from 3,628 in 1921 to 7,486 in 1925.

The Maternity Home continues to perform a useful function, but the accommodation for staff and patients is not all that can be desired, so that sooner or later the question of extensions will have to be faced.

Probably, however, the most urgent requirements in the maternity and child welfare services are the provision of orthopædic treatment for crippled children under five years of age and the provision of dental treatment for both mothers and young children.

1.—SUPERVISION OF THE WORK OF THE MIDWIVES PRACTISING IN THE BOROUGH.

ADMINISTRATION OF THE MIDWIVES ACT, 1902 AND 1918.

There were during 1925, 20 midwives registered as practising in the town. Of these, 16 hold the certificate of the Central Midwives' Board.

The duties of the Health Visitor, who acts as Inspector of Midwives, have been detailed in previous reports, and the following is a summary of the work for 1925:—

Number of visits to midwives and homes		56
Number of visits to homes during lying-in period in order to investigate midwife's work		16
Number of visits to midwives, re disinfection after exposure to cases of infectious disease		23
Number of classes held for instruction of midwives ...		4
Number of notifications of sending for medical aid received from midwives		504
Number of notifications of artificial feeding		2
Number of notifications of deaths of mother or child before attendance of a doctor		
	mother	1
	infants	2

In every case of difficulty the midwife, in accordance with the Rules of the Central Midwives' Board, must advise that medical aid be sought, and must notify the Medical Officer of Health that this has been done. During 1925, 504 notifications were received in this connection, and for the following cases:—

	1925.
Difficult Labour	182
Malpresentation	22
Ante-partum Hæmorrhage...	24
Post-partum Hæmorrhage	7
Illness during Pregnancy	59
Complications after Labour	143
Condition of Infant...	50
Malformation	4
Miscarriages	4
Still-births	6
Abortions	3
	504

The Midwives Act of 1918, which came into force on the 1st January, 1919, among other provisions, requires the Local Supervising Authority to pay the fee (according to a fixed scale) of the practitioner called in by a midwife in any emergency.

Accounts for attendance were submitted to the Local Authority in 94 instances as follows:—

Difficult Labour	101
Malpresentation	19
Ante-partum Hæmorrhage...	8
Post-partum Hæmorrhage...	7
Ruptured Perinæum	40
Adherent Placenta	17
Illness during Pregnancy	26
Abortions, &c.	8
Still-births	1
Condition of Infant...	21
Complications after Labour	12
Total ...	260

The fees paid by the Local Authority for the year 1925 in accordance with section 14 of the Midwives Act, 1918, and Orders issued by the Ministry of Health in 1920 and 1922, were:—

				£	s.	d.
Fees under	(1)	123 at	£2 2 0 ...	258	6	0
,, ,,	(2)	4 at	1 1 0 ...	4	4	0
,, ,,	(3)	64 at	1 1 0 ...	67	4	0
,, ,,	(4)	6 at	1 1 0 ...	6	6	0
,, ,,	(5)	155 at	0 5 0 ...	38	15	0
,, ,,	(6)	10 at	0 10 0 ...	5	0	0
,, ,,	(7)	4 at	0 2 6 ...	0	10	0
				£380	5	0

The following is the scale of fees for doctors called in by midwives, as amended by the Ministry of Health, and which came into operation 1/1/23:—

1. Fee for all attendances of a doctor at parturition (i.e., from the commencement of labour until the child is born), whether operative assistance or not is involved, including all subsequent visits during the first 10 days, inclusive of the day of birth £2 2s. 0d.

2. Fee for attendance of a second doctor to give an anaesthetic, whether on account of abortion or miscarriage, at parturition or subsequently £1 1s. 0d.

3. Fee for suturing the perineum, for the removal of adherent or retained placenta, for exploration of the uterus, for the treatment of post-partum hæmorrhage, or for any operative emergency arising directly from parturition, including all subsequent necessary visits during the first 10 days, inclusive of the day of birth £1 1s. 0d. This fee not to be payable when the fee under (1) is payable.

4. Fee for attendance at, or in connection with, an abortion or miscarriage, including all subsequent visits during the 10 days from and including the first visit £1 1s. 0d.

5. Fee for visits to mother and/or child not included under (1) to (4):—
 Day (9 a.m. to 8 p.m.) 5s.
 Night (8 p.m. to 9 a.m.) 10s.

6. The usual mileage fee of the district to be paid for all attendances under (1) to (5) of this scale.

7. Fee for attendance on mother and/or child at the doctor's residence or surgery 2s. 6d.

8. No fee shall be payable by the Local Supervising Authority:—

 (1) Where the doctor has agreed to attend the patient under arrangement made by or on behalf of the patient or by any Club, Medical Institute or other Association, of which the patient or her husband is a member, or when the doctor is under obligation to give the treatment to the patient under the National Health Insurance Acts, 1911 to 1922.

 (2) Where the doctor received or agrees to receive a fee from the patient or her representative.

 (3) In respect of any services performed by the doctor on any date later than the 10th day from the date of his first attendance, unless he has reported to the local supervising authority that he considers, for reasons stated by him, that his further attendance is necessary, or in respect of any services performed by the doctor after the expiry of four weeks from the day of birth.

2.—THE WORK OF THE HEALTH VISITORS.

The basis of the work of the Health Visitors is the Notification of Births Act, which provides that every birth occuring in the Borough must be notified to the Medical Officer of Health within 36 hours of its occurrence.

With this early information it is possible for our nurses to render assistance to the mother, if required, in bringing up her child from the earliest age.

To check the notifications we have the assistance of the Registrar with the particulars he receives at the time of the registration of the birth—but this may be any time up to 6 weeks after birth.

In addition, careful inquiries are made by the Health Visitors into the deaths of infants occurring in the town, and a return is regularly received from the Registrar at the Cemetery of all still-births that come to his knowledge.

NOTIFICATION OF BIRTHS ACTS, 1907 and 1912.

The total number of births belonging to Warrington registered in 1925 was 1,699, birth rate 21.7. (Also see births, page 13.)

The notifications received by us under this Act do not correspond with those registered mainly, because a period of 6 weeks is allowed in which to register, against 36 hours for notification. The period covered therefore in the twelve months does not coincide for the two groups.

Number of births notified	...	1808
,, ,, not notified	...	7
Total	...	1815

The notifications were received as follows:—

From Doctors	29
,, Midwives	1400*
,, Parents	0
,, Institutions	379
Total	1,808

(* + 10 duplicate.)

The births in the Borough were attended by midwives alone in 59 per cent. of cases.

Attended by doctors (+ midwives in some cases)	356
,, ,, midwives alone	1073
,, in institutions	379
Number notified	1,808

The duties of the Health Visitors have been detailed in previous reports, and a summary only of the work done will be given here:—

SUMMARY OF WORK OF THE HEALTH VISITORS FOR PAST 5 YEARS.

	1921.	1922.	1923,	1924.	1925.
First Visits to Infants...	1,875	1,698	1,687	1,528	1,667
Total Visits to Infants...	6,084	5,808	6,614	5,939	6,264
Infant Death Inquiries...	130	76	101	75	120
Visits to Children, aged 1—5 years	7,058	6,713	9,077	10,017	8,994
Inquiries into Deaths, 1—5 years	105	90	63	102	110
Visits and Re-visits to Expectant Mothers..	1,637	1,434	1,564	1,546	1,401
Still-birth and Abortion Investigations ...	48	41	52	38	43
Visits to Children out to Nurse	105	50	64	88	75
Visits to Illegitimate Children	215	168	239	305	337
Visits to Measles Cases..	104	680	572	266	791
,, Whooping Cough	419	98	260	32	244
,, Diarrhœa Cases	99	15	38	22	12
,, Mumps ,,	—	—	—	—	3
,, Chickenpox ,,	—	—	—	21	49
,, Scarlet Fever	—	—	—	3	4
,, Pneumonia	10	7	—	50	88
,, Puerperal Fever	7	2	4	4	6
,, Ophthalmia	10	—	—	5	17
,, Cripples ...	45	26	26	—	1
,, Dirty Homes	141	122	134	—	184
,, Consultation Centres ...	327	292	341	144	481
Other Visits	771	1,139	800	843	608
Nuisances Reported ...	141	—	91	61	59
Interviews with Parents at Health Department	451	591	813	938	747
Ante Natal Clinic ...	—	—	—	—	44

2.—THE WORK OF THE CONSULTATION CENTRES.

There are at present four Centres in the town open as follows:—

Liverpool Road	Mondays	2 p.m.
Folly Lane, Bewsey ...	Tuesdays	
Brick Street	Wednesdays	
Wash Lane, Latchford ...	Thursdays	

A great deal of the work of these Centres is carried on by voluntary workers, and we are deeply indebted to these ladies for many years of patient work.

The provision of shelters for perambulators at three of the Centres has been a boon to mothers on wet days.

The attendances of mothers and children during the year have been as follows:—

Attendances.	Mothers.	Ex. M.	Infants.	Children 1 to 5 years.	Total
Brick Street—					
Total ...	4323	365	2695	2138	9521
Av. weekly	94	7.9	58.6	46.4	206.9
Latchford—					
Total ...	2995	248	1814	1487	6544
Av. weekly	63.7	5.3	38.6	31.6	139.2
Liverpool Road—					
Total ...	2143	90	1344	1082	4659
Av. weekly	46.6	2	29.2	23.5	101.3
Bewsey—					
Total ...	1659	125	1154	757	3695
Av. weekly	35.3	2.7	24.5	16.1	78.6

The following compares the attendances for recent years:—

	1921.	1922.	1923.	1924.	1925.
Mothers	11,385	10,010	9,236	9,691	11,120
Expectant Mothers ...	1,168	1,093	1,188	1,217	828
Infants	8,323	7,144	5,701	5,598	7,007
Children	3,776	3,736	4,802	5,406	5,464

Number of consultations held by the Medical Officer in 1925:—

(i.) At the Centres.

		Liverpool Road.	Brick Street.	Latch-ford.	Bewsey.	Total.	Sum Total.
No. of Sessions		46	46	47	47		
Infants	1st examination...	115	273	136	113	= 637	=2879
	Re-examination...	463	691	625	463	= 2242	
Children 1 to 5 years	1st examination...	29	59	40	45	= 173	=1182
	Re-examination ..	218	322	308	161	= 1009	
Expectant Mothers	1st examination...	29	53	38	20	= 140	= 388
	Re-examination...	37	90	80	41	= 248	
Nursing Mothers	1st examination...	39	82	48	39	= 208	= 636
	Re-examination ..	86	112	143	87	= 428	
Others		45	44	66	47	= 202	= 202
Total		...1061	1726	1484	1016	= 5287	=5287

(ii.) At the Health Office.

Infants	161
Children	157
Expectant Mothers	222
Nursing Mothers	127
Others	161
Midwives	8
	836

(iii.) At Maternity Home.

Expectant Mothers	315
Mothers	12
Infants	66
Others	152
	545

(iv.) At the Health Office: Ante-natal Clinic.

Expectant Mothers	818

Total number of consultations held by M.O. in 1925—7,486.

The following is a comparison of the work done for the past five years:—

	1921.	1922.	1923,	1924.	1925.
Mothers	435	464	361	482	775
Expectant Mothers ...	918	1282	1138	1455	1743
Infants	1402	1961	1648	2208	3106
Children	728	871	1200	1545	1339
Others	131	214	165	349	515
Midwives	14	12	11	8	8
Total ...	3628	4804	4523	6047	7486

4.—ANTE-NATAL WORK.

Supervision of and Consultations for Expectant Mothers.

Although there has been a large reduction in the death rate from most of the preventable diseases occurring in infancy, there is still a very considerable incidence of ante-natal causes (i.e., of factors acting on the child through the mother before its birth). For instance, out of 139 infant deaths in 1924, no less than 70, or 50 per cent., were due to prematurity, congenital malformations, atrophy, debility and marasmus.

For several years now it has been our custom therefore to endeavour to supervise the health of the expectant mother, and the following table shows the growth of the work in this direction:—

	No. of exp. mothers known to the Health Department.	Total No. of births.	Percentage of mothers known to total births.	No. of consultations by M.O.
1916	242	1850	13.8	—
1917	618	1576	39.2	—
1918	512	1693	30.2	—
1919	829	1762	47.4	296
1920	1187	2082	49.8	928
1921	1191	2033	58.5	918
1922	1038	1872	55.4	1282
1923	1038	1877	55.3	1138
1924	1067	1734	61.5	1455

It will be seen from the above table that the proportion of cases of expectant mothers known to us in the town each year compared with the number of birth in the year has increased from 13.8 to 61.5 per cent. of the total. Consultations have been held either at the Consultation Centres, the Health Office, or the Maternity Home, as circumstances permitted, and under many difficulties.

Some of the disadvantages in the past have been:—

1.—At the Maternity Home.

(a) The distance from the centre of the town, the patient therefore being involved in extra expense and loss of time.

(b) Limited accommodation—there being no waiting-room or suitable dressing-rooms.

2.—At the Centres or Health Office.

(a) No suitable rooms or apparatus.

(b) Limited time at Centres owing to large attendance of infants and children.

It was found necessary therefore to set apart a special morning for the work, and the accommodation at the Tuberculosis Dispensary has been utilised on Tuesday mornings.

As it is quite central and attached to the Health Department, this is most convenient both for patients from all parts of the town and for the Medical Officer and the Health Visitors.

The actual premises are very suitable, comprising waiting-room for patients, dressing-room with lavatory, and consulting-room already furnished with examination couch, desk and wash basin. The building is thoroughly cleansed and disinfected the evening before it is used as an Ante-Natal Centre.

The initial outlay was not large. The sum of £8 covered the cost of towels, blankets, pillows, steriliser, and instruments required.

Work of the Clinic.

The average number of mothers seen is 16. The Medical Officer sees each patient every attendance, and advice is given to them about diet, clothes, general and personal hygiene, &c. They attend on an average about once monthly until the end of the 7th month, and thereafter every 2 or 3 weeks, or oftener if necessary. Full records of cases are kept, and any expectant mother found to be requiring ante-natal treatment for such conditions as albuminuria, hæmorrhage, &c., can be admitted to the Maternity Home.

No patient is seen without the consent of the doctor or midwife in the case, where one has been engaged.

One of the Health Visitors attends each session to assist the Medical Officer.

Although expectant mothers are still regularly visited in their own homes by the Health Visitors, the Clinic has obviated to a large extent repeated home visiting.

Results of the Work are gratifying so far. The attendances are good, and several new cases are seen each time. The advice given is practically always carried out.

The midwives of the borough have been urged to send up their cases, and are co-operating well with the Department. Each patient is given a card with full particulars and instructions on it, to take back to her midwife.

During the year 1925, attendances have been satisfactory, and the numbers prove that the women are willing to avail themselves of this supervision. Several women have come on the recommendation of a friend who attended at an earlier date.

Number who attended the Clinic... ... 430

Births registered for the year 1786

(24.07 per cent. of the expectant mothers received regular ante-natal care at the Clinic.)

of the 430 { 328 were seen at the Health Office.
102 were seen at the Maternity Home.

of the 430 { primipara 148
multipara 282

274 booked for confinement at the Maternity Home.

17 booked for confinement at Whitecross.

139 booked with a district midwife.

Total Consultations for 1925 for Expectant Mothers 1,133
(excluding those seen only at Welfare Centre.)

Average number of consultations per patient 2.6

Results of this work can only be shown in a record of the subsequent history of the patients during pregnancy, labour and the puerperium. The following figures are as accurate as is possible, and are obtained from the Maternity Home records, reports from the midwives, and investigations by the Health Visitors:—

PREGNANCY.

A. Albuminuria.—9 cases were admitted from the Clinic to the Maternity Home for treatment. Several milder cases were not admitted, but were kept under close supervision. Eclampsia occurred in 1 case only (1 ante-partum fit), owing to the patient failing to report herself as requested. This woman was delivered 24 hours later of a living child, and both mother and infant did satisfactorily.

B. Acute pyelitis.—2 cases were admitted to the Home for treatment with good results.

C. Hyperemesis.—3 cases received in-patient treatment, after which the pregnancy proceeded normally, two of the three having had normal confinements since.

D. Cardiac cases.—2 were treated (one in Whitecross and one in the Maternity Home) during pregnancy. Both had normal confinements later at the Home.

E. Threatened premature labour 1

F. Central Placenta prævia at the 7th month ... 1
Seen at the Clinic and admitted immediately to the Maternity Home for version: result, stillborn infant, mother did well, and was discharged 12 days later.

G. Pressure symptoms and severe cramp in legs... 1

H. External Version from breach or transverse lie to normal vertex position was done in several cases at the Clinic at 8½ months. Result, normal vertex deliveries subsequently; two cases were admitted to the Maternity Home for version under general anæsthetic.

I. Induction by bougies for disproportion between the pelvis and the fœtal head was done in two cases. Result, one normal delivery—living child; one low forceps—S.B. hydrocephalic child.

J. Leucorrhœa.—5 cases were sent from the Clinic to the Infirmary for treatment.

K. Venereal Diseases.—1 case of syphilis and one case of gonorrhœa received treatment at the V.D. Clinic. Wassermann tests are done at the Clinic in all cases of suspected syphilis, and cervical urethral smears are examined in all suspicious leucorrhœa cases.

Labour.

Of the 430 expectant mothers seen during 1925, 352 have been delivered up to the time of writing this report. 73 are still undelivered, and 5 have not been traced.

352 deliveries	312 normal vertex cases.		
	40 abnormal cases.		
40 abnormal cases	Forceps (low forceps in most cases)		17
	Transverse—obstructed labour—prolapsed cord		1
	Obstructed labour—impacted shoulders—version after forceps had been tried ...		1
	Cæsarian Section—		
	Deformed pelvis ...	2	
	Contracted pelvis ...	2	5
	Cervical fibroid ...	1	
	Premature labours		7
	Placenta prævia		1
	Breech		3
	Adherent placenta		5

Still Births		13
	Premature due to albuminuria	3
	Obstructed labour	1
	Transverse presentation with prolapsed cord ...	1
	Placenta prævia—central—at 7th month	1
	Acute lobar pneumonia of mother at 8th month ...	1
	Hydrocephalus and spina bifida	1
	Cause not definitely known	5
Neonatal Deaths		5
	Spina bifida	1
	After difficult labour	1
	After normal breech—cerebral hæmorrhage ...	1
	Congenital syphilis	1
	Inattention at birth—cord round neck	1

Maternal Deaths.

	Acute lobar pneumonia at 8th month	1

Puerperium.

The results of ante-natal work in this respect have been judged by the Maternity Home records. 240 patients who were delivered at the Home received regular ante-natal supervision. Of these, 9 had morbid temperatures of varying degrees in the puerperium, but all were satisfactory on discharge. 231 had normal puerperia and were sent home between the 10th and 14th day

9 morbid temperatures	Hæmatoma of vulva after normal delivery ...	1
	Oral sepsis	1
	Sapræmia from vaginal lacerations	4
	Temperature before delivery	3

As regards the consultations, individual advice is given to all patients with regard to diet, general hygiene, preparation of the breasts for lactation, and attention to the teeth and mouth. In the majority of the patients very little care has been taken, or is being taken, of the teeth, so that oral sepsis is most prevalent. A dental clinic is a necessary complement to the ante-natal clinic, and is urgently required. The local dentists to whom patients have been sent with a doctor's note are unwilling to undertake to treat an expectant mother's mouth, and the women themselves have to be educated that the risk from dental extraction is less than that

from absorption of septic material from the mouth. The expense, too, of attending a private dentist naturally debars many of the patients from treatment. Such prejudices could be easily overcome if there was a regular clinic to which the mothers could be sent. This dental clinic might also undertake to attend to the teeth of children under 5.

In addition to the work of the Centres, expectant mothers are visited in their own homes by the Health Visitors:—

	PRIMIPS.		MULTIPS.			
	Married.	Unmarried.	Married	Unmarried.		
No. of 1st visits paid by nurses	163	5	748	1	=	917
No. of revisits paid by nurse	49	1	453	0	=	503
Total visits	212	6	1201	1	=	1420
No. of Expectant Mothers visited in their own homes only, and who did not attend Centre or Clinic	35	2	402	1	=	440
No. of 1st visits paid ...	81	2	651	1	=	735
No. of revisits paid...	16	0	188	0	=	204
Total visits	97	2	839	1	=	939

5.—MATERNITY HOME.

This Institution, which was opened in July, 1918, continued its useful work during the year.

There are 15 beds (including labour bed and 2 isolation beds).

During 1925, 258 children were born in the Institution in 258 confinements. Further particulars follow:—

(1)	No. of patients in Home, 31st December, 1924	10	
	,, ,, admitted during year	288	
	,, ,, in Home, 31st December, 1925	10	
(2)	Average duration of stay		12.5 days
(3)	No. delivered by doctor	41	
(4)	,, ,, ,, Midwives	217	
	Total ...	258	

(5) No. of Cases in which Medical Assistance was required and reasons.

(a) Ante-Natal ... 21

Albuminuria	6
General Debility	3
Ante-partum Eclampsia	2
Chloroform Examination: external version breech to vertex	2
Persistent Vomiting	2
Lobar Pneumonia	1
Acute Pyelitis	1
Mitral Stenosis	2
Pressure Signs, cramp	1
Threatened abortion	1
	21

(b) During Labour 84

Forceps Deliveries	11
Cæsarian Sections	5
Hydramnios	1
Ante-partum Hæmorrhage	5
Hysteria during Labour	1
Abnormal Presentations	9
Placenta Prævia	2
Post-partum Hæmorrhage	1
Removal of Placenta	4
Collapse after Labour	1
Rigidity of Perineum	1
Perineorrhaphy	2
Induction of Labour (Bougies)	4
„ „ (Plugging Vagina) ...	1
Chloroform in 2nd stage...	5
Version during Labour	1
	54

(c) After Labour... 21

Anæmia	2
Cardiac Disease	1
Mastitis	2
Thrombophlebitis	3
Pyelitis and Albuminuria	3
Bronchitis	—
Temperature over 100.4 (all causes)	9
Epilepsy	1
	21

(d) For Infants ... 46

Prematurity	4
Umbilical Hernia	1
Cleft Palate and hare lip	1
Malœna Neonatorum	1
Abscess on head	1
Discharging Eyes	10
Acute Mastitis	1
Convulsions	1
Atelectasis	1
Intertrigo	1
Infant Feeding	24
	46

(6)	No. of cases notified as puerperal sepsis	—			
(7)	„ „ „ with temp. over 100.4 for 24 hours	9			
(8)	„ „ „ with ophthalmia neonatorum	—			
(9)	„ „ „ with inflammation of eyes	10			
(10)	„ „ babies not entirely breast fed..	24	(a) Supplementary	14	
			(b) Supplementary, later complete breast	5	
			(c) Supplementary, later complete artificial ...	4	
			(d) Complete artificial from breast	1	
(11)	„ „ maternal deaths	—			
(12)	„ „ infant deaths	4			
	Cerebral hæmorrhage ...	1			
	Atelectasis	1			
	Prematurity	2			
(13)	„ „ still births	7	Placenta Prævia premature	2	
			Hydrocephalus and Spina bifida	1	
			Macerated Fœtus (A.P.H.)	1	
			Prematurity	1	
			Obstructed Labour ...	2	

The rules for admission of patients were printed in the 1920 report. Applications may be made at the Health Department daily at 9.30 a.m., or at one of the Consultation Centres.

The work for the past five years is contrasted in the following table:—

MATERNITY HOME.

	1921.	1922.	1923.	1924.	1925.
Admitted ...	268	247	256	217	288
Average stay...	13 days.	14.3 days.	13 days.	13.5 days.	12.5 days.
Births	249	226 (twins 2)	225 (twins 1)	202 (204 children) (2 sets twins)	258
Doctor ...	45	20	28	29	41
Midwife...	204	204	196	173	217
Med. Assist ...	178	152	152	142	172
C.S.	0	0	3	3	5
Mat. deaths ...	3	0	1	1	0
Infant deaths..	7	3	3	5	4
Still-births ...	13	7	11	14	7

Whenever circumstances permit patients are expected to contribute towards their maintenance in the Home.

The following scale for patients who receive maternity benefit has been adopted for this purpose:—

Scale of Fees.

Weekly wage.	Weekly Payments.				
	Primips.	One child.	Two children.	Three children.	Four children.
Less than £2 10s.	Maternity Benefit.				
£2 10s.	30/-	25/-	Mat. ben.	Mat. ben.	Mat. ben.
£3	35/-	30/-	25/-	21/-	—
£3 10s	40/-	35/-	30/-	25/-	—
£4	45/-	40/-	35/-	30/-	25/-
£4 10s.	50/-	45/-	40/-	35/-	30/-

In cases where husband and wife each receive a maternity benefit the fee is usually not less than £2 weekly. People residing outside the Borough have to pay the full actual cost of maintenance (at present £3 15s. per week).

During 1925 the amount received from patients was £709 10s.

6.—INSTITUTIONAL TREATMENT OF PUERPERAL FEVER AND VENEREAL DISEASES IN EXPECTANT MOTHERS.

A few beds have been provided at Aikin Street Isolation Hospital for dealing with any septic complication occurring in lying-in women.

There is accommodation also in the same Hospital for treating cases of Venereal Diseases occurring in pregnant women.

7.—HOSPITAL ACCOMMODATION FOR INFANTS AND CHILDREN.

(*a*) Measles or Whooping Cough.

Two wards with 50 beds at the Isolation Hospital are set aside for dealing with cases of these diseases in children in which hospital treatment is found necessary.

(*b*) Marasmus, Debility and Dietetic Ailments.

Ten cots are allocated for these cases at Aikin Street Hospital.

BABY WARD, 1925.

(1) No. of cases admitted, 1925 56
,, ,, ,, still in Hospital, 31st December, 1924 8

(2) Average duration of stay, 31.7.

(3) Reasons for Admission.

Marasmus and Malnutrition	36
Chronic Gastro Enteritis	4
Purpura	1
Acute Enteritis	3
Measles and broncho pneumonia	1
Bronchitis	2
Rickets	5
For Observation	3
Tubercular Peritonitis	1

(4) No. of Cases Discharged.

In good health	22
Improved	14
Died	12
No Improvement	8
	56

(5) No. of Cases of Infectious Diseases occurring among the Patients admitted:—

(a) Measles	1
(b) Whooping Cough	1
(c) Epidemic Diarrhœa	3
(d) Other Infectious Conditions	0

(6) No. of deaths 12.

	Cause.	Age.	Date.	Residence in Hospital.
1.	Broncho pneumonia: heart failure	1 10/12	30/3/25	15 days
2.	Marasmus: Congenital Debility	—	12/4/25	12 days
3.	Marasmus: Bronchitis	9/12	12/4/25	12 days
4.	Marasmus: Congenital Debility	7 weeks	24/4/25	27 days
5.	Acute Enteritis	13 months	16/5/25	3 days
6.	Marasmus	—	2/6/25	26 days
7.	Marasmus: Debility after Measles	1 8/12	4/8/25	11 days
8.	Marasmus: Congenital Debility	3 months	16/10/25	20 days
9.	Congenital Debility: Gastro Enteritis	10 months	19/10/25	29 days
10.	Congenital Debility	16 months	24/10/25	40 days
11.	Measles: Broncho Pneumonia	1 year	7/11/25	6 days
12.	Marasmus: Congenital Debility	$2\frac{1}{2}$ years	13/11/25	6 days

(7) Cases discharged from the Hospital on account of illness.

(a) Early Hydrocephalus after Meningitis: transferred to Salford Royal Hospital for Operation.

(b) Cleft Palate and Harelip: Operated on at Royal Liverpool Children's Hospital.

Cases Treated in Ailing Babies Ward at Aikin Street During Past Five Years.

	1925	1924	1923	1922	1921
Admitted	56	44	30	32	86
Deaths	12	12	3	6	4

(*c*) Ophthalmia Neonatorum (see also page 124).

By arrangements with the Local Infirmary cases of this disease are admitted—if need be with the mother also. Out of 12 cases occurring in 1925, 7 received institutional treatment. Five of these completely recovered, one died from marasmus, and one weakly baby recovered with impaired vision after 5 weeks treatment.

In the following table some particulars are given of the cases of Ophthalmia Neonatorum notified during the year. Altogether 12 cases were notified. Every endeavour is made to induce the parents to allow the child to receive institutional treatment, and this is generally agreed to, at any rate in the most severe cases.

Ophthalmia Neonatorum Cases, 1925. 12 notified.

No.	Date of Notification.	Date of Onset.	Age when Treated.	Where Treated.	Length of Treatment.	Mother attended at confinement by	Result.	Remarks.
1	Feb. 9th	Feb. 7th	2 days	Whitecross Hospital	4 days	Midwife		Infant died in Whitecross—Marasmus and Congenital Debility.
2	March 12th	March 11th	10 days	Home	12 days	Midwife	Cured.	
3	April 10th	April 6th	8 days	Whitecross	1 month	Midwife	Cured.	
4	April 17th	April 15th	10 days	General Infirmary, Whitecross, and Home	8 weeks	Midwife	Cured.	
5	April 22nd	April 21st	3 days	Home	10 days	Midwife	Cured.	
6	April 23rd	April 21st	3 days	Gen. Infirmary	3 months	Doctor	Cured.	
7	June 15th	June 13th	2 days	Gen. Infirmary	12 days	Doctor	Cured.	Infant died age 2 months—Enteritis
8	Nov. 9th	Nov. 7th	¾ hour	Infirmary	5 weeks	Doctor and Midwife	Impaired Vision Scarring of Cornea	Premature—feeble infant.
9	Nov. 9th	Nov. 9th		Home	10 days	Doctor	Cured.	
10	Dec. 2nd	Nov. 29th	7 days	Infirmary	1 month	Midwife	Cured.	
11	Dec. 15th	Dec. 7th	8 days	Home	19 days	Doctor and Midwife	Cured.	
12	Dec. 21st	Dec. 20th	17 days	Home	17 days	Sister at Maternity Home	Cured.	

8.—HOME NURSING.

Our arrangements with the District Nursing Association, which were made in 1919, were continued during the year. The following work was done on our behalf:—

	Cases.	Visits.
Measles	78	633
Whooping Cough ...	1	21
Complications following confinement ...	6	43
Pneumonia	5	18
Totals ...	90	715

9.—SUPPLY OF MILK FOR EXPECTANT AND NURSING MOTHERS AND FOR CHILDREN UNDER FIVE YEARS OF AGE.

Details of our scheme under this heading were given in the Report for 1919.

The following table shows the amount of Milk provided during 1925:—

FRESH MILK.

	Necessitous Nursing Mothers.	Expectant Mothers.	Ailing Babies.
No. of cases ...	156	71	22
No. of quarts ...	3409	1655	407

Total cost—5,471 quarts at £141 5s. 4d.

DRIED MILK.

No. of children under 1 year ...	148	250
aged 1 to 5 years	102	
No. of mothers supplied	32	

Total quantity supplied, 5,492 lbs.

In addition, 546 lbs. of dried milk were distributed free of cost, and 303 lbs. sold at half price.

10.—SUPERVISION OF ILLEGITIMATE CHILDREN AND OF CHILDREN PUT OUT TO NURSE.

Special care is exercised in following up children coming within these categories.

337 special visits were paid to 130 illegitimate children.

A register of all children whose mothers have to leave home to work is kept, and any child put out to nurse receives special attention. To our knowledge there were in 1925 30 children out to nurse, and they received 75 special visits, although the responsibility for the supervision of such cases really rests with the Board of Guardians, another instance of overlapping in administration.

THE BLIND PERSONS ACT, 1920.

The powers under this Act have been delegated to a special Sub-Committee, consisting of all the members of the Health Committee, together with certain co-opted members representative of various interests.

Under the above Act the Local Authority was required to submit a scheme for the welfare of blind persons in the area for the approval of the Ministry of Health.

In 1921 a scheme was submitted and temporarily approved by the Ministry. (See page 418, Vol. 43, Council Minutes.) This scheme was, in the first place, a municipal one, and under it the Local Authority were permitted to appoint a special Home Teacher and Visitor for the Blind.

Almost from the outset, however, the Ministry of Health urged the authority to endeavour to foster and encourage the formation of a voluntary organisation in the town to assist the Committee in their work.

A public meeting was held in the Town Hall on the 31st January, 1923, when the Warrington, Widnes and District Society for the Blind was inaugurated.

On the 31st December, 1925, this Society had under its care 161 blind persons within the County Borough, together with others from the surrounding area, which includes Widnes, Newton-in-Makerfield, Earlestown, Winwick, Houghton, Arbury, Middleton-with-Croft, Fearnhead, Padgate, Woolston, Golborne, &c., Bold, Burtonwood, Lowton, Kenyon, Great Sankey, Culcheth, Glazebrook, Penketh and Cuerdley.

The services of Mr. W. Isherwood, the home teacher, were transferred to this body from April 1st, 1923.

Since then much valuable work has been done by the Society, which is now filling a long-felt need amongst the blind community.

In October, 1923, premises at 4, Museum Street, were purchased for use as headquarters.

These premises provide offices, social centre, reading room and library, workshop for blind basket makers, stocking knitters, cane chair seaters, boot and shoe repairers, and mat and brush makers, caretaker's quarters, and shop for the sale of goods made by the workers.

Workshop.

There are in regular employment:—

3 basket makers,
2 stocking knitters,
1 cane chair seater.

Each worker receives 15/- per week, in addition to their earnings, which is the full amount allowed by the Ministry of Health.

Home Workers.

The following are the occupations pursued by the home workers:—

Boot and shoe repairing.
Hand knitting,
Watch and clock repairing,
Piano tuning and repairing.

Each worker who qualifies for grant receives 10/- per week augmentation, in addition to his earnings.

Home Teacher.

Much excellent work is performed by Mr. W. Isherwood, who is very popular among the blind:—

Number of visits in 1925	2417
Number of lessons in reading and writing raised type...	247
Number of books exchanged...	1494
Number of periodicals, music, &c.	95

Social Work.

The Centre is open each evening, when the average attendance of 16 persons enjoy games of bagatelle, dominoes, draughts, cards, or if they wish to play the piano or read, ample provision is made.

Socials and Concerts are arranged fortnightly, when the number present average above 80.

In addition to the work of the Home Teacher for the Borough, the majority of cases are visited regularly by members of the Ladies' Visiting Committee, which is much appreciated by the blind.

Through the kindness of the Chairman of the Society, Colonel Gordon Roberts, members of Messrs. Crosfield's Rovers also visit, read to and take some of the special cases out for walks.

The following are the annual payments made to the Society by the Local Authority:—

Block grant	£160
Half the home teacher's salary	78
Grants of £20 per annum for each of 7 home workers and workshop employes ...	140
	£378

At the end of 1925 the question of insuring a minimum income for all blind persons in the area was receiving careful consideration.

Statistics re Blind Persons.

I am indebted to Mr. T. Ashworth, Secretary of the Society, for the figures that follow.

Number on register: Males 83, females 78; total 161.

	Ages in Groups.		
Under 5 years ...	Males 1 ...	Females 0 ...	1
Under 16 years ...	Males 11 ...	Females 10 ...	21
Under 21 years ...	Males 8 ...	Females 2 ...	10
Under 50 years ...	Males 20 ...	Females 10 ...	30
Under 70 years ...	Males 33 ...	Females 29 ...	62
Over 70 years ...	Males 10 ...	Females 27 ...	37
	Males 83 ...	Females 78	Total 161

No. of Trained Persons.

Basketmakers	3
Piano Tuners	2
Mat Makers	1
Home Teachers	2
Machine Knitters	2
Cane Seaters	1
Poultry Farmers	1
Total (9 males, 3 females)	12

Persons employed but not Trained.

Hawkers	2
Shopkeepers	1
Miscellaneous	2
Total (5 males, 0 females)	5

Persons in Training.

Henshaw's Institution, Manchester, 4 males.
Brunswick Road Institution, Liverpool, 1 male, 2 females.
Hardman Street Workshop, Liverpool, 1 female.
Total, 8.

APPENDIX.

A REPORT ON CONVERSION FROM THE CONSERVANCY TO THE WATER CARRIAGE SYSTEM OF SEWAGE DISPOSAL.

To the Chairman and Members of the Health Committee.

I beg to submit herewith a report on the question of the conversion of pail closets in the Borough to water closets.

In January, 1914, the Local Government Board wrote:—

"Warrington has a higher percentage of conservancy closets than any other of the great towns, but the Town Council are apparently taking no steps to secure the conversion of such closets to the water carriage system.

"The Board would remind the Council that the conditions commonly associated with closets of the conservancy type, however carefully they are emptied and cleansed, cannot but be a menace to the public health of a district. On the other hand, the results of the general adoption of the water carriage system are, in the Board's experience, reflected in improved figures as to sickness and mortality which compare favourably

with those of districts where other conditions are similar, but in which the conservancy method of excrement disposal is in vogue. And apart from benefit to health, the Board would remind the Council that the cost of scavenging is as a rule considerably reduced by the conversion of closets of the conservancy type to the water carriage system. Having regard to the nuisance inseparable from conservancy methods of excrement disposal, and to the other consideration mentioned above, the Board direct me to urge the Council to take into consideration a regular system of conversion in connection with the question of re-sewering the Borough."

As a result of this a Sub-Committee, consisting of Representatives from the Health, Paving and Sewage, Water and Sanitary Works Committees, was formed to consider the question. Nothing was done, however, owing to the outbreak of the war.

In the last report on Sanitary Conveniences in Urban Districts issued by the Board, Warrington occupies the unenviable position of having the greatest proportion of pail closets among the 95 great towns.

In fact, 94.6 per cent. were pail closets, compared with 5.4 per cent. on the water carriage system. The proportion in some of the neighbouring towns was:—

St. Helens	...	55%	dry system.
Wigan	...	58%	,, ,,
Stockport	...	31%	,, ,,
Salford	...	8%	,, ,,
Oldham	...	15%	,, ,,
Bolton	...	46%	,, ,,

In recent years many towns have tackled the problem and made great progress with the work of conversion to the water carriage system. During the past three years, for instance,

Nottingham	have converted		30,000	pail closets.
St. Helens	,,	,,	1,390	,, ,,
Wigan	,,	,,	2,600	,, ,,
Rochdale	,,	,,	4,090	,, ,,
Wolverhampton		,,	4,875	,, ,,
South Shields	,,	,,	3,700	,, ,,
Middlesbrough	,,	,,	13,133	,, ,,

whilst Warrington during this period have converted none at all.

(For further particulars see table appended at the end of this report.)

There can be no doubt, I think, that water carriage is the cleanest, best and most hygienic system obtainable. The prompt removal from dwellings of organic pollution is one of the wisest preventive measures.

From an aesthetic point of view, the abolition of pail closets throughout the Borough would naturally result in the suspension of the carting of night soil through the streets and the disadvantages attached to emptying of the pails into the vehicles adjoining dwellings.

It is sometimes urged as an argument against conversion that Warrington's vital statistics compare very favourably with those of towns where the water carriage system has been adopted. This is a fact, but I may say in reply that I know of no case in which after conversion there has not been a further improvement in the health statistics of a district.

If this be so, most people will agree that a conversion scheme should be prepared. What then are the difficulties confronting us?

They may be considered under the following headings:—

1. Legal.
2. Engineering.
3. Water Supply.
4. Financial.

These points will only be dealt with briefly, and it must be borne in mind in what follows that where matters are touched upon outside the scope of our Department they are subject always to the criticism of the Department concerned.

1. Legal.

The question of the provision of adequate sanitary conveniences and the substitution of water carriage for other systems is dealt with in various general and local Acts:—

(i.) Under the Warrington Corporation Act of 1879, Section 13, the Local Authority have power to require an owner to convert a privy in certain circumstances, and it was under this Section that the original conversions from the privy to the pail system were made.

(ii.) Under Section 36 of the Public Health Act, 1875, the Local Authority can insist upon houses being supplied with sufficient closet accommodation, but this Section cannot be used to bring about a system of general conversion.

(iii.) Under Section 91 of the Public Health Act, 1875, where a privy is a nuisance this must be abated by the owner and cost falls upon the owner.

(iv.) Under Sections 39, &c., of the Public Health Acts (Amendment) Act of 1907, the Local Authority, where there is sufficient water supply and sewer, may require conversion of any existing closet accommodation (other than a water or a slop closet) In the case of conversion of pail closets the total cost may fall upon the Local Authority. This Act is not of general application, but is an adoptive Act and up to the present these Sections have not been adopted in this town.

(v.) Special powers for converting pail closets to water closets can be obtained in clauses of Local Acts, and this has been done by many Authorities.

From the foregoing it will be observed that

(a) We have at present no power to undertake the wholesale conversions to the water carriage system.

(b) In certain instances with our present powers under the 1875 Act, we could, where the pail closets were a nuisance owing to proximity to dwelling-houses, defective conditions, &c., compel the substitution of water closets, and the cost would fall upon the owner.

(c) Having required the conversion to the pail closet type under Section 13 of our Local Act we cannot now ask owners, under this Section, to convert again to the water carriage system.

(d) Under the Public Health Acts Amendment Act, 1907, certain clauses of which would have to be adopted, the whole cost of conversion would fall upon the Local Authority unless some arrangement could be come to with local property owners to share the expense.

(e) There is another alternative, and that is, that further special powers might be obtained in clauses of a new Local Act, or a provisional order might be applied for, to attend existing clauses (Section 303 Public Health Act, 1875).

On inquiry, I find that the undermentioned towns have acted as follows:—

1. Under the Public Health Act (Amendment) Act, 1907, Section 39, &c.

 South Shields, Middlesbrough, Tynemouth, Nottingham.

2. Under Local Acts.

 Manchester, St. Helens, Huddersfield, Rochdale, Halifax.

2. ENGINEERING.

On all premises where a pail closet is in use the conversion will entail the provision of:—

1. Water closet pedestal.
2. Necessary fixing and connections with sewer.
3. Connections with water supply, flushing system and fixing same.
4. Alterations where necessary to the closet building.

In a recent survey of the Borough taken by our Sanitary Inspectors we find:—

Total number of pail closets	14569
Total number of additional closets required...	13
Total number of additional closets required where space is available if each house is to have a separate water closet	91
Total	14673
Total number of water closets	3141
Situation of pail closet:—	
Less than 6 ft. from dwelling-house ...	314
Over 6 ft. but less than 10 ft.	1620
Over 10 ft. from dwelling-house	12635
Structure as to suitability for conversion:—	
Roof requires raising	435
Requires total re-building	922

Distance	From existing main drain.	From water supply.
Under 6 ft.	343 ...	305
Between 6 ft. and 10 ft.	2716 ...	1703
Over 10 ft.	10762 ...	12000
Doubtful	748 ...	561
	14569 ...	14569

It is possible that the existing main sewers might be capable of carrying the additional sewage from the converted closets. These sewers, however, all discharge direct into the Mersey, and it is becoming more and more apparent in the case of towns situated on the banks of tidal rivers, some of which reach far inland, and from which the sewage can only be carried to sea on the ebb tide, that some form of clarification of the sewage should be provided before its discharge. All solid matter at least should be removed. To do this, re-sewering of the Borough would probably be necessary, and in order to carry the sewage to some convenient place for treatment before discharge, expensive pumping plant might be required owing to Warrington's position in the river valley. Once the sewage has reached the place for treatment the best form of such treatment (viz., by septic tank, downward filtration beds, &c.) would be another problem.

The question, too, of treatment of or exclusion of trade effluents might have to be considered.

3. Water Supply.

Undoubtedly one of the greatest difficulties in the way of any wholesale conversion scheme at present is the question of water supply.

The average amount of water required each day per w.c. per household should be at least twenty gallons, and so an additional 293,460 gallons per day would be required in this town if a complete water carriage system was installed.

It is questionable whether this is possible with our existing water supply.

4. Financial.

The great expense of any scheme for conversion is certainly an obstacle to its adoption in the near future.

If conversion only is considered, one may roughly estimate the cost at £10 per conversion, giving a capital cost of £146,730 for the whole Borough.

The work would be spread over several years, but at its completion the cost of the present system of collection and disposal of night soil would be saved.

Now for the year ending the 31st March, 1925, the cost of removal and treatment of excreta in the Borough was £17,134. I understand that £17,130 per annum represents the sinking fund and interest on a loan for 30 years of £260,000, a sum which much more than covers the cost of actual conversion. In the case of one or more districts, too, a conversion scheme has been started as a means of relieving unemployment. In South Shields, for instance, the Unemployment Grants Committee granted 65 per cent. at first, increased later to 75 per cent., of the loan charges for half the period of the loan. More recently Gateshead have acted similarly.

In additon, however, the whole question of re-sewering the Borough and of treating the sewage must arise, and information with regard to this and its probable cost will have to be obtained from the Borough Surveyor.

Conclusion.

In spite of all the difficulties, however, there is no reason why some progress should not be made in the matter.

1.—In the first place it seems desirable that in future no closets except water closets should be allowed to be built within the Borough, and in any revision of the Building Bye-laws this should have consideration.

2.—Further, in certain instances, we might proceed to require conversion of pail closets to water closets under existing powers (P.H.A., 1875, Sect. 91) in all cases where at present the pail closet is within 6 feet of a dwelling. We have a complete list of all the worst cases in the Borough, and as might be expected, they mostly occur in connection with the worst class of property. The Committee will have to consider therefore whether they feel justified in enforcing the expense of conversion on property owners in cases where the property is already condemned as unfit for habitation or likely to be condemned at an early date.

3.—There are instances of several houses having to share one sanitary convenience. It is not possible owing to want of space to endeavour to obtain a separate convenience for each dwelling in every case, but the conditions would be greatly improved if water closets were installed instead of the pail system.

4.—Three cases have been quoted where it is the custom for the men to carry the pails through the dwelling at the time of emptying them, and although this needn't be so in two of the cases, it seems very desirable that these conveniences should be converted to obviate the possibility of such a state of things obtaining in future.

The circumstances of the cases are as follows:—

A. 6H. Street. In this case the pail is carried across what is called the scullery for about 5 feet. The scullery is nothing more than an old shed, and can be shut off from the dwelling by a door which, in fact, is always closed except on washing days. This closet ought to be converted, as the house is not on the schedule of condemned houses.

B. 13B. Street. This is the worst case of the three reported, and the only one which is correctly described as passing through portion of the house, viz., about 4 feet across the scullery.
This closet ought to be converted, as the house is not scheduled.

C. 260. Street. There was always access for the men removing the pail from this closet, but for the convenience of the tenant, who had stored goods against the passage door, the pail men were allowed to pass through the scullery. Immediately we called the owner's attention to the matter the passage was opened out. A new door and frame has been erected, and the pail men now regularly use the correct outlet.

5.—Pail closets are still in use at the following schools:—

Trinity (Infants).
Silver Street (Boys).
Latchford (St. James').
Sacred Heart.
Thewlis Street.
St. Barnabas'.
Wycliffe.

These might well be converted to the water carriage system. It is most objectionable, as well as unhygienic, to have pail closets situated in a school playground, and in some cases in close proximity to the schoolroom windows. Not only do children spend some 27 hours a week on the school premises, but it is here that some of the most lasting impressions of a child's life are formed. It is necessary therefore that the conditions should be as hygienically ideal as possible.

6.—A Sub-Committee might be re-appointed, consisting of representatives from the Health, Paving and Sewage, Sanitary Works, and Water Committees, as there is much preliminary work to be done with regard to the powers to be sought and the form of scheme to be adopted as the result of the experiences of other areas.

Finally, it is evident that if we can begin conversions as suggested, the work of the Sanitary Depots will gradually decrease, and it is to be hoped that this will obviate the necessity of any extension of or largely increased expenditure on a form of sewage disposal which undoubtedly the majority of people would like to see abolished if only the time was opportune.

G. W. N. JOSEPH, M.D., D.P.H.,
Medical Officer of Health.

January 1926.

SOME PARTICULARS OF CONVERSIONS IN OTHER TOWNS DURING THE LAST THREE YEARS.

Town	No. of pail closets	No. of water closets	No. converted last 3 years	Average cost of conversion per closet	Amount paid by Corp.	Amount paid by owner	How is sewage treated	Under what powers have conversions been made.
Wigan	4532	12350	2600	£10	£5	£5	Septic tanks and bact. beds	L.G.B. prov. orders conf. Act, 1896
Huddersfield	14658	14584	606	£18 15s.	£10 max.	£10	,,	Local Act
Manchester	1200	228475	78	£28 New structure	During last 3 years. entirely at owners' expense		,,	,,
Rochdale	7368	14643	4090	£8 10s.	£4	£4 10s.	,,	,,
St. Helens	1452	13532	1300	£11 0s. 8d.	£6 0s. 8d.	£5	,,	,,
Nottingham	100	65888	30000	£14 to £17	1912-20 £3 10s. to £10. Later Corp. paid entire cost.	£7 to £12	,,	,,
Halifax	16000	9500	Just st'd... sch. to conv. 2000 per year	£12	½ cost	½ cost	Screening prec.... and filtration	,,
Middlesborough	122	28778	13133	£9 11s.	Total	Nil.	Direct out-fall into River	Sect. 39 P.H.A. (A) 1907.
South Shields	12400	8800	3700	£9	½ cost	½ cost	Not treated and... flows into Tyne	Sect. 39 P.H.A. (A) 1907
Wolverhampton	100	21000	4875	£10	½ cost	½ cost	Prec and land treatment	L.G.B. Prov. Orders Conf. Act,1896
Tynemouth	8403	5786	520	£8 16s. 2d.	Total	—	Direct into Sea...	Sect. 39 P.H.A. (A) 1907
Warrington	14673	3141	—	—	—	—	—	—

COUNTY BOROUGH OF WARRINGTON.

Annual Report

TO THE

Education Authority

ON

SCHOOL HYGIENE

For the Year 1925

BY

G. W. N. JOSEPH, M.D., D.P.H.,

Medical Officer of Health
and School Medical Officer.

WARRINGTON:
MACKIE & CO. LTD., THE GUARDIAN PRESS.

SCHOOL MEDICAL SERVICE COMMITTEE

LIST OF MEMBERS, 1925.

Alderman JAMES EVANS,
Councillor GEORGE ARCHER,
Councillor JOSEPH BANKS,
Councillor FRANK STRINGER,
Mr. FREDERICK HODSON,
Mrs. C. JACKSON HOLMES,
Mr. SYDNEY W JEFFERY,
Mr. CHARLES E. PARKER (Chairman),
Mr. EDWIN PLINSTON,
Mr. GEORGE WALKER.

Ex-Officio. Alderman DAVID TINNION.
(Chairman of the Education Committee).

OFFICIALS.

Office held.	Name.	Qualifications.
School Medical Officer ...	G. W. N. JOSEPH	M.D., B.Ch., D.P.H.
Assistant School Medical Officer	C. A PAULUSZ	L.R.C.P., L.R.C.S. (Ed.), L.R.F.P. & S (Glas.),L.M.R.C.P.I., D.P.H.
Dental Officer	W. HUTCHISON	L.D.S.
School Nurses	Miss BROWN	General Cert.
	Miss MASON	General Cert. & C.M.B. Cert.
	Miss GRIFFITHS	General Cert. & Hygiene Cert. (Queen's).
	Miss RITSON	General Cert.
Clerical Staff.		
Clinic Registration Clerk	Miss E. WARBURTON.	
Dental Clerk	Miss M. SANKEY	
Medical Inspection Clerk	Miss A. MILLS	
Special Officer	Mr. W. RUTTER	
Medical Inspection Clerk	Mr. J. BENION	
Assistant Secretary for Education	Mr. R. PRICE	
Director of Education ...	J MOORE MURRAY ...	M.Sc. (Vict.).

SCHOOL CLINICS.

Inspection Clinic... (page 24)	Health Dept., Sankey Street	Examination of cases referred by Teachers, Attendance Officers, Nurses, &c.	Daily 2-3 p.m. (weekdays) 11-12 a.m. (Sat.)
Minor Ailment Clinic (page 25)	,,	Treatment of contagious diseases of skin, eyes, &c.	2-5 p.m. daily Sats., 9 a.m. to 12 noon
Dental Clinic (page 31)	,,	Dental treatment	9.30 a.m. to 12 noon 2 p.m. to 5 p.m. Special cases, Thurs. & Sat. mornings
Eye Clinic (page 28)	Warrington Infirmary	Prescription of spectacles	11 a.m. Saturdays
Throat Clinic (page 30)	,,	Treatment of enlarged tonsils and adenoids	Tuesday, 10 a.m. Friday (operations)
X Ray Clinic (page 26)	12, Rylands Street	Treatment of ringworm of scalp	Tuesday, 10 a.m.

TO THE EDUCATION AUTHORITY OF THE

COUNTY BOROUGH OF WARRINGTON.

Ladies and Gentlemen,

I beg to submit to you my Thirteenth Annual Report on School Hygiene, viz., that for the year 1925.

Of the children attending our Public Elementary Schools, 6,072 were medically examined during the year (exclusive of re-examinations), either at the Routine Medical Inspections in the Schools or at various special inspections either in the Schools or at the Clinic (see page 54).

In addition the children attending our Secondary School were also kept under medical supervision (page 54).

Among Elementary school children the number found at the routine inspections with defects requiring treatment (exclusive of uncleanliness and defective clothing) was 773, or 19.2% of those examined.

A table is given on page 11 comparing the incidence of certain defects among our children with the average for the rest of the country.

Practically all the defects received satisfactory treatment during the year.

For the treatment of minor ailments 395 children made 4,339 attendances at our School Clinic. In addition the Nurses performed 33,529 dressings in the Schools (see page 27), thus avoiding the necessity of excluding children from attendance.

This system of school dressings, first introduced in 1921, appears to have been followed by a real reduction in the incidence of minor ailments, and some observations on the results are given on page 23.

The main extension of the school medical service during the year was the provision of an Orthopædic Centre for certain cases of crippling in school children.

With the inauguration of a scheme, too, for dealing with all cases of surgical tuberculosis, the problem of the care of the cripples in the Town is to a large extent solved. We are left still with a very important group of cases, namely, children from birth up to school age suffering from crippling conditions other than tuberculosis, and these it is hoped will eventually be dealt with by the Maternity and Child Welfare Committee.

Dr. Paulusz carried on the duties of Assistant School Medical Officer during the year, and I have to thank him for many of the statistics that follow.

The work of Mr. Hutchison, the School Dental Officer, and the four Nurses is referred to in the body of the Report (pages 20 and 33).

Mr. Flood, Chief Sanitary Inspector, has given me much valuable assistance in investigating the sanitary condition of the Schools.

I wish to convey my thanks to Mr. J. Moore Murray, the Director of Education, and his Staff, for assistance in collecting certain information.

Lastly, I would like to place on record my appreciation of the cordial support always rendered to me by the Members of the School Medical Service Committee and the Local Education Authority.

I am, Gentlemen,

Your obedient Servant,

G. W. N. JOSEPH.

March, 1926.

1.—STAFF.

No changes were made in the number of the Staff engaged in the School Medical Service in Warrington during 1925, and as particulars of the duties were given in my Report for 1920, they will not be repeated here. A list of the names of those employed is given on page 2.

This Staff keeps under supervision 13,180 children at present on the school registers.

Cost.

Total estimated expenditure on Elementary Education, 1925-26	£121,220
Total cost of Special Services for Elementary Education, i.e. School Medical, Blind, Deaf Schools, &c., 1925-26	£4,111
Total cost of School Medical Service only (Elementary), 1925-26	£3,031

The cost of the School Medical Service for the public elementary schools is £3,031 per annum, or 2.5% of the total.

2.—CO-ORDINATION WITH OTHER HEALTH SERVICES.

There has always been close co-operation between the work of the School Medical Service and that of the Local Health Department, as described in former Reports.

With reference to the transfer of records of children from the Infant Welfare Department to the Education Department, when the child reaches school age, it is interesting to note the following table:—

	1925	1924	1923
Number of school entrants examined ...	1401	1344	995
Number who have attended an Infant Welfare Centre	450 (32·1%)	365 (27·1%)	213 21·4%
Proportion of these with defects ..	12%	15·3%	17 3%
Number who did not attend an Infant Welfare Centre	951 (67·9%	979 (72·9%)	782 (78·6%)
Proportion of these with defects ..	24·5%	27 2%	26·9%

It will be observed that there is year by year an increase in the proportion of children who attend these centres, and further that there are fewer defects amongst this group of entrants.

3.—SANITARY CONDITION OF THE PUBLIC ELEMENTARY SCHOOLS.

A Review of the hygenic conditions of the Schools in the area, with particular reference to their surroundings, ventilation, lighting, warming, equipment, and sanitation, was given in the Report for 1922.

There are at present in Warrington 23 Public Elementary Schools, divided into 47 Departments.

No structural alterations of note were made in 1925, but the following schools were cleaned and decorated:—

Arpley Street Council.
Parochial.
Beamont Council.
Evelyn Street Council.

During our periodical visits observations were made on the type and condition of **Desks** and **Blackboards** in use in the schools.

Whilst several schools have fixed boards in the classrooms, there is also in every instance a moveable board and easel.

Dual desks with backs are supplied in the modern schools or where additional accommodation has been provided in the older schools. The proportion of old and new desks throughout the school department is as follows:—

	All Dual.	50% and Over of Dual.	Less than 50% Dual.	Long with no Back.
Total 47 =	15	5	20	7

Water Supply.—The water supply for washing and drinking purposes is the same in every case and is derived from the town's main.

There is no hot water laid on in any of the school lavatories, available for washing (except in the new Council Schools, where baths have been provided), and undoubtedly if this could be installed it would be an important factor in assisting to maintain cleanliness of the children, especially in cold weather.

Arrangements for Meals.

As might be expected, very few children remain at school for the mid-day meal, and in fact the head teachers as a rule discourage the practice, in any case in which the child lives near at hand.

With the exception of Wycliffe School, the scholars who have dinner at school come from homes outside the Borough.

RETURN showing the number of children affected and the number of school attendances lost in consequence of contagious diseases during the years 1916 to 1925.

	RINGWORM.		IMPETIGO		CONJUNCTIVITIS.		AURAL DISCHARGE		UNCLEANLINESS		OTHER AILMENTS.		TOTALS.	
	Children.	Attendances.	Children,	Attendances.	Children	Attendances.	Children.	Attendances.	Children	Attendances.	Children.	Attendances.	Children.	Attendances.
1916	282	10324	1195	28022	656	17082	134	3411	313	4483	654	17193	3234	80515
1917	293	9751	1356	31707	435	9494	79	1702	275	3434	652	13617	3090	69705
1918	266	10421	1641	39482	1503	30737	121	2171	354	7083	660	14559	4545	104453
1919	271	9847	1711	36296	775	17023	163	2880	479	6495	480	10851	3879	83392
1920	603	21091	1277	26427	471	8904	87	1045	729	6816	754	18672	3921	82955
1921	296	18763	878	15584	423	7527	69	997	662	7069	672	15896	3000	65836
1922	102	5828	258	4880	198	3687	8	157	526	5838	340	10072	1432	30462
1923	104	4490	218	4773	138	2563	8	158	281	2892	225	7265	974	22141
1924	136	6198	199	4286	150	2588	2	14	229	2172	122	2969	838	18227
1925	118	6565	176	3471	149	2896	4	53	198	1968	112	3600	757	18553

In two instances only is there any large number (viz., St. Benedict's Mixed 25 and Latchford R.C. 29), where meals are brought to school.

At Wycliffe, Arpley Street and Oakwood Avenue, a few children occasionally remain.

In all cases a classroom is set aside at mid-day, provided with a gas ring, on which milk, etc., can be heated, and the caretaker supervises the children during the meal.

The class of food usually consists of bread and jam, cheese, meat or egg sandwiches.

Pail Closets are still used at the following schools:—

Trinity (Infants).
Silver Street (Boys).
Latchford St. James'.
Sacred Heart.
St. Barnabas.
Thewlis Street.
Wycliffe.

The conversion of these pail closets to the water-carriage system should be carried out with as little delay as possible. It is most objectionable as well as unhygienic to have pail closets situated in a school playground, and in addition, in some cases, in close proximity to the schoolroom windows.

Closed Stoves are still made use of for heating purposes in the following schools:—

Heathside (Boys, Girls and Infants).
St Alban's (Mixed and Infants).
St. Peter's (Infants).
St. Barnabas' (Infants).
Latchford R.C.

This is unsatisfactory; the air becomes dry and detrimental to both teachers and scholars. There is also the danger of poisonous products of combustion finding their way from the stove into the classroom air. With the wind in certain directions or when the top lid has to be opened to reduce the draught, a considerable portion of the fumes blow back into the room. Often they become unbearably hot for those sitting close to them, whilst the the back of the room is comparatively unwarmed.

There is no doubt that if in these schools an outside boiler was installed, efficient heating by the low pressure system of hot water pipes could be obtained with a great saving annually in the amount of fuel consumed.

The following points I think ought to have consideration in the planning of any new schools:—

(1) Although the value of central heating is undoubted the installation of coke furnaces in the basement of schools is not desirable as in many instances the fumes ascend into the classrooms.

(2) Some provision should be made for drying clothes and boots in wet weather. At present wet garments are generally placed on the radiators or hung on the fireguards, in the rooms. It should be an easy matter to make special drying arrangements in connection with the boiler-house. At the same time the provision of a hot water supply to the lavatory basins might be considered.

(3) It does seem in some of the modern schools as though the sanitary conveniences are often situated at too great a distance from the classrooms, in six instances more than 50 yards from the school buildings. In bad weather, children passing across the playground to and fro are liable to get their clothing wet. In many instances it ought to be possible to provide accommodation in a wing in proximity to the cloakrooms.

(4) The extreme value of the ultra violet rays in sunshine appears to be admitted, and if so the substitution of special glass which permits these rays to pass through would be beneficial. It would, of course, be no use putting this in windows on a northern aspect, and it need only be put in those portions of other windows which are exposed to direct sunshine.

4.—MEDICAL INSPECTION.

The Routine Medical Inspections are conducted by the Assistant Medical Officer during the mornings at the various schools in the Borough.

The arrangements made for carrying out this work have been detailed in earlier Reports.

Age Groups Inspected.—School children in Warrington are medically examined at least three times during their period of attendance at an elementary school, viz., during the 5th, 8th and 13th years. These are referred to as the "Entrant," "Intermediate" and "Leaver" groups of children.

In order that children, who, for any reason, miss a routine inspection, should not wait until the next age period before they are examined, they are again summoned for inspection during the year after the usual period.

The numbers dealt with in 1925 were as follows:—

Entrants	...	...	...	1401
Intermediate	...	...	...	1213
Leavers	...	...	...	1399
				4013 (boys 2066 girls 1947)

Further particulars of age and sex are given in Table Ia, page 54.

The number inspected the previous year was 3,983.

For inspections in the Secondary School, see page 54.

Special Cases.

Many children are specially examined each year, apart from those notified for examination at the Routine Inspection.

The teachers submit any special case to the doctor at the time of inspection in the Schools, or special cases may at any time be sent to the School Clinic.

In this connection the following were dealt with in 1925:—

"Specials" at School and Clinic ...	2059

Various additional examinations and re-examinations are carried out both in the Schools and the Clinic (see page 17).

In connection with the following up of defects the number of

Re-inspections was	2355

All Routine Inspections were carried out on the school premises (Article 44b).

The Board's schedule of medical inspection was followed in every instance and there was no disturbance of the ordinary school arrangements.

5.—FINDINGS OF MEDICAL INSPECTION.

Out of the 4013 children examined in our Schools at Routine Medical Inspection during 1925, 1,107, or 27.5 per cent., were found to be suffering from some defect which either required treatment or needed to be kept under observation.

Altogether 773 or 192.62 per 1,000 children examined required actual treatment, and it is interesting to note the following table which compares this incidence with the average for certain representative areas throughout the country as given in Sir George Newman's Report for 1924:—

Group of Defect.	Number of Defects Requiring Treatment.	Number of Defects Requiring to be Kept Under Observation.	Total.	Incidence of Defect Requiring Treatment Per 1,000 Children Inspected.	
				In Warrington.	Average for London and 24 representative areas.
Malnutrition	54	2	56	13.45	6
Skin Disease	46	—	46	11.46	13
Defective Vision ...	214	9	223	53.32	62
Squint	19	6	25	4.73	9
Eye Disease	26	2	28	6.47	9
Ear Disease	28	3	31	6.97	11
Nose and Throat Disease.	271	59	330	67.53	51
Enl. Cervical Glands ...	7	19	26	1.74	4
Defective Speech ...	—	1	1	—	1
Heart Disease, Organic ...	—	4	4	—	2
,, Functional.	—	3	3	—	1
,, Anæmia.	3	3	6	.74	9
Lung Disease (non T.B.).	49	2	51	12.21	12
Tuberculosis:					
Pulmonary, Definite ...	—	—	—	—	.4
,, Suspected ...	—	—	—	—	1
Non-Pulmonary	3	—	3	.74	1
Disease of the Nervous System	1	6	7	.24	2
Deformities	1	9	10	.24	7
Other Defects and Diseases	51	11	62	12.7	17
TOTALS	773	139	912	192.62	—

The incidence of many of the conditions mentioned in the table are fairly similar in Warrington to the rest of the country.

The number of cases of malnutrition appear to be much higher with us, but I think this is largely due to our high standard.

Squint cases in Warrington seem to be about half the average, and cases of anæmia requiring treatment are very much less than those found in the country as a whole.

For the full statistics relating to the year's work, reference should be made to Table II. appended to this Report (page 55).

The following is a brief review of some of the facts revealed:—

(*a*) Uncleanliness.

Although there is a very slight increase in the proportion of children found at the routine inspection to be suffering from verminous heads (3 per cent. against 2.4 per cent. last year) it is probably more a question of the higher standard adopted than that there is any deterioration in the cleanliness of the children.

The percentage of cases with verminous heads (i.e., nits or pediculi or both) is shown in the next table compared with recent years:—

1916	10%
1917	10.73%
1918	15.8%
1919	11.2%
1920	6.3%
1921	3.8%
1922	6.6%
1923	3.6%
1924	2.4%
1925	3%

The low incidence of dirty heads found at inspections compares very favourably with other districts, although, of course, the supervision in the schools by the school nurses accounts for it to a great extent.

This is referred to again on pages 34 and 35.

(*b*) Minor Ailments.

Among minor ailments impetigo, which, to a large extent, is a dirt disease, has declined with dirty heads.

	No. examined.	Impetigo.	Pediculosis.
1920	3813	74(1.9%)	321(8.3%)
1921	4724	43(.91%)	171(3.5%)
1922	4519	23(.51%)	300(6.6%)
1923	3782	21(.58%)	137(3.6%)
1924	3983	24(.6%)	98(2.4%)
1925	4013	30(.74%)	122(3%)

In 1925 the proportion of children found by the School Doctor to be suffering from some of the other minor ailments, compared with previous years, was as follows:—

	1925.	1924.	1923.	1922.	1921.	1920.
Ringworm (Scalp)	.09%	.1%	.07%	.06%	.34%	.15%
Conjuctivitis and Blepharitis.....	.5%	.7%	1.47%	.7%	1.1%	1.9%
Scabies (itch)	.07%	.1%	.1%	.06%	.45%	.52%

A steady diminution in all these conditions is evident.

This does not account for all the minor ailments, however, because the majority are found by the School Nurses at their daily visits, or excluded by the teachers before the routine inspection by the Doctor.

(*c*) Tonsils and Adenoids.

Altogether, 274 children (6.7%) were referred for treatment of defects of the nose and throat, compared with 220 (5.5%) the previous year.

Further particulars of the treatment of these cases are given on page 30.

(*d*) Enlarged Cervical Glands.

I mentioned in my last report that although for many years the incidence of verminous heads and impetigo had markedly declined, the number of cases of enlarged cervical glands had not diminished pari passu as one would have expected. This is seen in the following table:—

	Enlarged Cervical Glands.
1920	55(1.4%)
1921	80(1.6%)
1922	83(1.8%)
1923	78(2.06%)
1924	82(2.05%)
1925	69(1.7%)

(*e*) Tuberculosis.

A better idea of the real amount of tuberculosis in Warrington among school children is to be gathered from the notifications received under the Public Health Tuberculosis Regulations, 1912.

The following table shows the number of children suffering from the different forms of the disease, who were to our knowledge living in the Borough on the 31st December, 1925:—

	Attending school		Not attending school		Total.
	Males	Females	Males	Females	
Tuberculosis of Lungs	25	8	8	9	50
,, ,, Glands	34	30	2	2	68
,, ,, Abdomen	15	8	4	4	31
,, ,, Bones and Joints	19	3	7	9	38
Other form of Tuberculosis	6	5	1	—	12
Totals	99	54	22	24	199

Any children suspected to be suffering from early tuberculosis of the lungs were further examined at the Clinic, and, if necessary, referred to the Tuberculosis Department to be kept under observation (see page 36) for treatment.

(See also page 17 re notifications during the year).

(*f*) Skin Disease.

Reference is made under Minor Ailments to the cases of impetigo, ringworm and scabies discovered.

(*g*) External Eye Diseases.

There were 16 cases of blepharitis (inflammation of the edges of the eyelid) compared with 23 the year before, and six cases of conjunctivitis, compared with six in 1924.

(*h*) Vision.

The eyesight of boys and girls in the first age group is not tested unless in exceptional circumstances.

For many years now the results of inspection have been fairly constant and are as follows:—

No. of children with normal vision, both eyes	about 41%
,, ,, ,, good vision (not less than 6-9ths)	,, 36%
,, ,, ,, fair vision (not less than 6-12ths)	,, 5 to 6%
,, ,, requiring treatment	,, 9%
,, ,, whose vision could not be improved	,, 4%

During 1925 the incidence of defect in the various age groups is shown in the next table:—

	Number Examined	6/6	6/9	6/12	W.G.	T	N.G. 1
Age Period IV.							
Boys—Age 13 ...	688	358	184	21	57	62	6
,, Age 14 ...	38	20	9	2	3	4	—
Girls—Age 13...	625	309	183	23	57	51	2
,, Age 14...	44	27	12	1	3	1	—
Age Period II.							
Boys—Age 8 ...	545	191	242	39	21	49	3
,, Age 9 ...	47	16	20	1	3	5	2
Girls—Age 8 ...	551	140	282	46	24	57	2
,, Age 9 ...	60	25	27	3	2	2	1
Totals ...	2598	1086	959	136	170	231	16
Percentage..		41·8	36·98	5·23	6·54	8·89	·61

(*i*) Ear Disease and Hearing.

31 cases of aural discharge were found at Routine Inspection. One case of otitis media was found and kept under observation.

(*j*) Dental Defects.

The School Medical Officer refers to the Dental Officer for treatment all children with four or more decayed teeth, or any children who are obviously suffering from lack of attention to the mouth.

During 1925 32 such cases were discovered.

(*k*) Crippling Defects.

4 cases of organic heart disease and 3 functional cases were discovered, and kept under special observation on this account. 6 cases of anæmia and 2 of chorea (St. Vitus' Dance) were found during Routine Inspection.

All these children and those suffering from any rheumatic manifestations are kept under special supervision all the year (see page 42).

(*l*) Nutrition.

Average Heights and Weights.

	Height.				Weight.					
	Boys.		Girls.		Boys.			Girls.		
Entrants—	ft.	in.	ft.	in.						
5 years	3	4.9	3	4.7	2	11	2	2	9	10.;
6 years	3	6	3	4.5	2	12	12.6	2	10	2.9
Intermediate—										
8 years	3	10.7	3	10.1	3	6	7.5	3	4	.10
9 years	4	0.2	4	0	3	11	1.5	3	8	1.8
Leavers—										
13 years	4	6.2	4	6.8	4	13	11.7	5	2	0.5
14 years	4	8.4	4	8.4	5	7	6.6	5	9	2.1

The following table summarises the findings of medical inspection as regards nutrition:—

Entrants—	Number examined.	Above normal.	Normal.	Below normal.	Markedly defective.
Boys, age 5	595	4	545	43	3
,, ,, 6	146	1	127	15	3
Girls, age 5	548	8	494	44	2
,, ,, 6	112	1	106	4	1
Intermediate—					
Boys, age 8	549	1	456	80	12
,, ,, 9	48		44	3	1
Girls, age 8	556	9	502	33	12
,, ,, 9	60		57	3	
Leavers—					
Boys, age 13 ...	689	9	595	71	14
,, ,, 14 ...	39		33	6	
Girls, age 13 ...	627	14	561	46	6
,, ,, 14 ...	44	4	33	5	2
Totals	4013	51	3553	353	56
Percentage ...		1.2%	88.5%	8.7%	1.3%

In 1924 the percentages were:—

Above normal	1.3%
Normal	90.1%
Below normal	7.5%
Markedly defective	.9%

It is evident that there is an increase in the number of cases of markedly defective nutrition.

(*m*) Other Defects.

The other defects found, 51 in all, at the Routine Inspections, and 6 at Special Inspections, mentioned at the foot of Table II., consisted of:—

Routine Inspections—	
Debility	1
Sore Throat	6
Rash	1
Defective Clothing	10
Defective Footgear	33
	51
Special Inspections—	
Sore Throat	6

Exclusions.—All children suffering from contagious disease who may be a danger to the other children, and all cases in which the condition necessitates absence from school are at once excluded by the A.S.M.O. at the time of his inspections. Slight cases are not excluded, but referred for treatment to the Nurses at their bi-weekly visits. The following are the cases excluded during 1925:—

	Excluded.	For Treatment in School by School Nurse.
Uncleanliness—Head	11	113
Body	6	88
Ringworm—Head	4	—
Body	2	1
Scabies	3	—
Impetigo	4	28
Other Skin Diseases	—	9
Blepharitis	1	18
Conjunctivitis	6	5
Stye	—	4
Aural Discharge and Wax in Ear ...	2	32
Sore Throat	12	—
Epilepsy	1	—
Rash	1	—
Defective Clothing	—	10
Defective Footgear	—	33
	53	361
The foregoing refers to defects and the actual number of children affected was	49	334

Further examination of cases selected at the Inspections in the Schools.

The further examination of certain cases is made at the Inspection Clinic when necessary. These cases consist of children whom it is impossible to examine thoroughly during the Routine examination.

In 1925 there were 626 such examinations made of 563 children, compared with 584 examinations of 532 children the year before. When a defect was discovered it was entered on the schedule card and has been included in the foregoing statistics as though found at the original Routine Inspection.

Other Medical Inspection Work.

In addition to the Routine Inspection work and the examinations of children in the schools in the mornings, a large amount of work is done by the S.M.O. at the Clinic every afternoon (see page 24).

6.—INFECTIOUS DISEASES.

The measures taken to prevent the spread of infectious disease have been the same as in previous years.

The daily visitation of schools by the nurses has assisted this work considerably.

The number of cases of **Notifiable** infectious disease occurring among school children during 1925 is shown in the following table, compared with the four previous years:—

Year	Scarlet Fever	Diphtheria	Enteric Fever	Pulmonary Tuberculosis	Other Tubercular Diseases
1921	196	48	—	16	37
1922	242	14	2	14	29
1923	110	22	2	14	22
1924	198	26	2	10	23
1925	162	33	1	19	37

The number of cases of Scarlet Fever was slightly below the number for last year, and below the average for the last five years which was 181. The majority, or 72 per cent., were notified during the first half of the year.

Diphtheria shows an increase over the last three years.

The notifications of Tuberculosis show a definite rise compared with the previous year. Dr. Delmege (Assistant Tuberculosis Officer) has gone carefully into all the cases and reports:—"The rise in notified cases of other tubercular diseases is I think genuine, though some of it may be due to notification of very slight adenitis. Amongst pulmonary cases the rise is questionable. In five of them the diagnosis of pulmonary tuberculosis is doubtful and four others might be classed as pre-tuberculous. The total number therefore may well be 10 instead of 19."

The next table shows the number of cases of **Non-Notifiable** infectious disease, although this does not represent the total number of cases occurring in the town among school children, but only those that came to our notice.

Year	Whooping cough cases	Chicken-pox cases	Mumps cases	Sore throat cases	Measles cases	German Measles cases
1921	417	283	175	652	277	8
1922	120	418	681	444	796	—
1923 ...	268	416	371	334	540	5
1924	56	272	65	207	559	233
1925	415	592	325	189	1188	2

An epidemic of Measles commenced about the middle of June and continued until the end of the year. The number of cases coming to our notice was greater than in any other year for which we have records.

There were increases in the number of cases of Whooping Cough, Chickenpox, and Mumps.

School Closure was not resorted to as a preventive measure for any outbreak of infectious disease in 1925 [Article 45 (b) and 57 of the Code].

Closure is resorted to only in very exceptional circumstances, because as soon as the schools are closed one of our most valuable sources of information regarding sickness among the child population is cut off.

In order to minimise as far as possible the risk of conveying infection to school certain children are referred daily to the Medical Officer of Health. These cases consist of

convalescents from infectious disease;
contacts with infectious disease;
children who are suspected of infectious disease;
children suffering from sore throats;

and the numbers dealt with in 1925 are shown in the next table:—

Children Examined by Medical Officer of Health as to Freedom from Infection.

Disease	Number of Examinations	Cases Detected	
		Scarlet Fever	Diphtheria
SCARLET FEVER (onvalescents examined as to their fitness to return to School	173	8	—
DIPHTHERIA Ditto.	32	—	2
CONTACTS with cases of Diphtheria examined previous to being allowed to attend School after case removed to Hospital	113	—	—
SORE THROATS (examined previous to being allowed to attend School	193	2	1
Totals	511	10	3

Deaths from Infectious Diseases and all other causes among children of school age during the past 10 years are given in the following table:—

Cause of death.	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
Scarlet Fever	—	—	2	—	1	—	1	—	3	3
Diphtheria	3	1	3	8	3	—	1	2	1	1
Enteric Fever	—	—	—	—	—	—	—	—	—	—
Measles	1	5	—	—	1	—	—	1	—	4
Whooping Cough	2	—	4	—	—	2	—	—	—	1
Diarrhœa	—	—	—	—	—	—	—	—	2	2
Tuberculosis of Lungs	13	9	4	7	2	5	1	6	3	2
Other Tubercular Diseases	—	6	5	6	8	6	2	4	2	3
Influenza	—	—	26	11	3	1	1	1	3	—
Accidents	—	—	—	—	—	—	5	2	3	8
All other causes	39	37	46	26	31	18	20	13	16	29
Totals	58	58	90	58	49	32	31	29	33	53

The following table shows the number of visits paid by the Sanitary Inspectors to the home of school children in investigating and supervising outbreaks of infectious disease:—

To premises where cases of Scarlet Fever, Enteric Fever or Diphtheria occurred	196
Re-visits to ascertain if contacts with Scarlet Fever, Enteric Fever and Diphtheria were free from infection and fit to return to School	295
Re-visits to cases of Scarlet Fever, Diphtheria or Enteric Fever being treated at home	93
Visits to premises where there were cases of Measles and German Measles	2426

Re-visits to homes where cases of Measles and German Measles are being treated	1654
Visits to homes of children reported by Education Department as being absent from School, owing to either Whooping Cough, Chicken-pox, or Mumps	1679
Re-visits to homes of children suffering from either Whooping Cough, Chicken-pox, or Mumps	1668
Visits to homes of Children absent from School with Sore Throat or Suspicious Rash	189
Visits to homes where there were cases of Influenza or Pneumonia	386
Visits to homes of children suffering from Pulmonary and Non-Pulmonary Tuberculosis	781
Total	9367

7.—"FOLLOWING-UP" OF CHILDREN SUFFERING FROM PHYSICAL DEFECTS AND WORK OF THE SCHOOL NURSES.

The procedure adopted in the following up of the cases to see that the defects found at Routine and other inspections are dealt with promptly and satisfactorily has been explained in former Reports.

The Tables at the end of the Report show the results obtained, but no record is given of the actual number of re-examinations made in each case by the doctor, or of the number of visits paid by the Nurses and School Attendance Officers in advising parents and in offering facilities for treatment.

Only as a last resort are parents summoned to attend before the School Medical Service Committee for not obtaining satisfactory treatment for their children (see page 40).

Work of the School Nurses.

The usual large amount of work has been carried out during the year 1925, in a very thorough manner, both in the Clinic and in the schools by the four Nurses, Miss Mason, Miss Brown, Miss Griffiths and Miss Ritson.

In the Schools.

As described in previous reports, the town has been divided into three districts worked by three of the Nurses alternately. Every school is visited twice weekly (*viz.*, on Mondays and Thursdays, or Tuesdays and Fridays).

Every child suffering from a minor ailment attending school can be seen, therefore, at least twice a week without any loss of school attendance.

During 1925 in this way they accomplished 33,529 dressings (see page 23).

When necessary, any of these cases that are liable to be contagious are excluded. These are in addition to the exclusions by the A.S.M.O. at Routine Medical Inspection.

Thus, during 1925 there were the following:—

Exclusions for Contagious Ailments.

	Boys.	Girls.	Total.
Aural discharge	—	1	1
Conjunctivitis	34	37	71
Chorea	1	—	1
Corneal ulcer	1	—	1
Eczema	1	7	8
Herpes	1	1	2
Impetigo (Scalp)	30	38	68
,, (Skin)	19	13	32
Incontinence	1	—	1
Ped. Cap.	5	120	125
Ringworm (Scalp)	25	9	34
,, (Skin)	4	4	8
Scabies	1	1	2
Uncleanliness	8	2	10
	131	233	364

Our supervision of outbreaks of infectious disease is facilitated and 48 special visits were paid by the Nurses to the schools in this connection last year, when they made the following:—

Exclusions for Contagious Conditions.

	Boys.	Girls.	Total.
Chicken-pox	19	30	49
Measles	5	7	12
Mumps	13	25	38
Rash	3	8	11
Sore Throat	14	19	33
Scarlet Fever	3	3	6
Whooping Cough	—	2	2
Influenza	1	—	1
			152

In addition they submitted a list of 236 children to the School Medical Officer for *further examination* for suspected defects.

Their work in the **School Clinic** is referred to on page 25, and apart from this the following is a summary of the activities of the Nurses during 1925:—

Visits paid to Schools to treat minor ailments	1686
No. of Dressings in School (see page 27)	33529
Visits to homes of children (in many cases assisting with treatment)	1424
Attendances at Routine Medical Inspection in the Schools with the A.S.M.O.	150
Notices sent to teachers with reference to excluded children	576
"Surprise Visits" to Schools (see page 34)	299
Extra visits *re* infectious disease	48
Administered nasal douches in cases of tonsils and adenoids after operation	967
Assisted in the Dental Clinic when necessary.	

8.—TREATMENT OF DEFECTS OF CHILDREN DURING 1925.

The Local Authority has provided facilities for the treatment of various ailments, and a list of the days and hours of attendance at the various Clinics is given on page 2.

Use is made of all existing agencies, and, in addition, a large number of cases are referred for treatment in their own homes. Whenever the circumstances warrant it, cases are induced to obtain treatment from a private medical practitioner.

I think that at last we are beginning to see a real reduction in the incidence of minor ailments among the children attending our schools.

The Treatment Clinic was initiated in the year 1912 in order to deal with minor ailments as a result of the experience of the Medical Officer that such cases among school children did not receive medical attention.

The work grew rapidly as will be seen from the following table:—

	Treated at School Clinic.	
	No. of children.	No. of attendances.
1913	268 ...	2036
1914	1973 ...	16391
1915	3721 ...	36531
1916	3631 ...	36919
1917	3802 ...	33378
1918	5124 ...	39991
1919	5484 ...	32249
1920	3500 ...	26853

In 1920, therefore, 3,500 children made 26,853 attendances at the Treatment Clinic and during the series of years enumerated it might have been urged that the measures taken had not tended to prevent these ailments but that there had been an actual increase.

In May, 1921, however, a system of treatment carried out twice weekly in every school in the Borough was introduced and this has most certainly been followed by gratifying results.

The next table shows what a decrease there has been in the number of children requiring treatment.

	No. of children attending		Treatment	
	Inspection Clinic.	Treatment Clinic.	No. having Home Treatment.	in the schools No. of Dressings.
1921	3011	1853	973	50,408
1922	1552	560	662	47,513
1923	1113	349	362	37,451
1924	1054	377	296	34,337
1925	925	395	218	33,529

It will be seen from the above that the numbers attending the Clinic, those treated at home and in the Schools have almost progressively diminished, and this is all the more noteworthy when it is taken into consideration that our standard of inspection has gradually become higher and higher.

Although several factors are concerned in this reduction, the main one is the system of treatment in the schools.

The Nurses are unanimous that this work is doing more good than the old clinic treatment. The teachers welcome it and have assisted in every way possible. They find that it keeps the children in school, it saves the grant, and the children tend to be cleaner. The parents too seem to prefer it more than the old system.

As the Nurses are in closer contact with all the scholars under this arrangement, they are better able to supervise in cases of infectious disease and fewer defects are liable to escape their notice. In a compact area, therefore, such as a County Borough, better and more economical results are apparently obtained by this method than by any other.

Certain cases of contagious disease, etc., have still to be excluded and for these the School Clinic is available but the work here is very light.

To carry out treatment in the schools obviously requires a somewhat larger staff of nurses than when all treatment is performed at the clinic, but any extra cost involved is practically defrayed by the large saving of grant. On looking at the table on page 23A it will be seen that in 1925 only 18,553 school attendances were lost by our children in consequence of minor ailments compared with 104,453 in the year 1918—a saving of 85,900 attendances. Last year the number of children excluded from the schools was only one-sixth of those excluded in 1918 (757 in 1925 compared with 4,545 in 1918).

A.—Minor Ailments.

The cases of minor ailments that attended the School Clinic for examination by the Medical Officer were as follows:—

	Boys.	Girls.	Total.
Ringworm (Scalp)	50	19	69
,, (Skin)	16	6	22
Conjunctivitis	72	89	161
Blepharitis	3	1	4
Aural Discharge	8	4	12
Impetigo (Scalp)	46	71	117
,, (Skin)	41	29	70
Scabies	4	4	8
Pediculosis (Scalp)	3	197	200
,, (Body)	8	1	9
Eczema	9	18	27
Corneal Ulcers	12	12	24
Miscellaneous	109	93	202
	381	544	925

(in 1924 the numbers were Boys 348, Girls 670, Total 1,054)

These cases were dealt with as follows:—

	Boys.	Girls.	Total.
Referred to private practitioners	53	50	103
,, ,, Infirmary	82	90	172
,, ,, School Clinic (excluded from school)	200	178	378
,, ,, treatment at home	18	200	218
Found fit for school on first attendance	28	26	54
	381	544	925

Practically one-ninth of the cases were referred to general practitioners for treatment—a greater proportion than in the previous year (proportion one-twelfth).

The cases referred to and treated by private practitioners were:—

	Boys.	Girls.	Total.
Ringworm (Scalp)	3	2	5
,, (Skin)	—	1	1
Conjunctivitis	3	1	4
Impetigo (Scalp)	2	2	4
,, (Skin)	3	6	9
Scabies	—	2	2
Pediculosis (Head)	—	1	1
Eczema	1	4	5
Miscellaneous	38	30	68
	50	49	99

1.—Treatment at the School Clinic.

When a child is suffering from an ailment that from its contagiousness may spread to other children, or when the attendance of a child in school may be harmful for other reasons, the case is excluded and in the majority of instances of minor ailments this excluded treatment is sought at the School Clinic.

The following table gives a summary of cases treated in this way and also includes 17 cases (11 boys and 6 girls) who were dealt with out of school hours as there was no risk to the patient or to other children in allowing them to attend school.

Number of Cases Treated at the Clinic.

Disease	No. of cases treated in school Clinic	Total No. of Attendances	Average No. of attendances per case	No. of days under treatment	Average No of days under treatment
Aural Discharge...	1	3	3	3	3
Ringworm, Skin ...	20	150	7·5	196	9·8
,, Scalp ...	58	2094	36·1	3770	6·5
Conjunctivitis ...	126	770	6·03	1043	8·2
Impetigo, Skin ...	53	320	6·03	403	7·6
,, Scalp ..	100	847	8·47	1042	10·42
Blepharitis, etc. ...	3	17	5·6	18	6
Miscellaneous ...	17	76	4.4	106	6·2
After-School Cases	17	62	3·6	67	3 9
Total ..	395	4339	—	—	—

In the case of aural discharge, ringworm of the scalp, and impetigo of the skin and scalp a considerable reduction is shown in the average duration of treatment in 1925 compared with the previous year.

The great diminution in the number of cases attending the clinic in recent years owing to the introduction of the system under which our Nurses carry out most of the dressings in the schools is shown in the table on page 23.

The "after-school" cases mentioned above consisted of various injuries and inflammations to the eye, ringworm, burns, boils and other septic conditions.

Ringworm of the Scalp.

A marked reduction in the incidence of ringworm amongst school children in this Borough has followed on the provision of X-ray treatment for this troublesome condition. Our arrangements were fully detailed in the Report for 1921 and some observations on the different methods we have employed in treating this disease were given in last year's report.

X-ray Treatment in 1925.

No. of cases dealt with	20	(15 boys and 5 girls). (In addition 5 cases who had X-ray treatment in 1924 were kept under observation until declared cured.)
No. of exposures necessary	86	
Total cost of the work	*£36/11/-	

*A small proportion of this is recovered from parents.

Clinic Treatment.

Number of cases dealt with 33 (of these 10 were cases receiving treatment in 1924). Altogether 58 cases of ringworm of the scalp were dealt with during 1925 under the Local Authority's Scheme. It is noteworthy that at the end of the year all the X-ray cases had been completely cured and to our knowledge there were only three cases of ringworm of the scalp in existence amongst the school population in the Town and these were receiving treatment at the Clinic.

2.—Treatment in the Schools.

The system under which the Nurses carry out this work has been detailed in previous Reports. At her daily visit all children suffering from any ailment are sent out to the Nurse for treatment.

When all have received attention the classes are visited if there is time, and each scholar comes under review.

All new admissions to school are seen by the Nurse at her first visit.

The benefit derived by the children from this closer supervision is marked.

Some further remarks on the advantages and the possibilities of a real reduction in the incidence of minor ailments amongst the children which has followed the adoption of this system are given on page 12.

The amount of work done in this connection by the School Nurses in 1925 is shown as follows:—

NUMBER OF DRESSINGS IN THE SCHOOLS.

Impetigo (Scalp)	844	431				
„ (Skin)	8513	6790				
Eczema	3129	2730				
Eyes	3005	2320				
Ears	3594	2173				
Totals ...	19085	14444	= 33529			

As far as possible these dressings are carried out in one department only in each school, in order to save the Nurses' time in packing and unpacking the surgical bags. A screen is provided in the few instances in which the work has to be done in a classroom.

The Nurses have also kept many slight cases of pediculosis of the scalp under observation, and gave them instructions (see uncleanliness, page 34).

Altogether in this connection 1,683 visits or an average of 73.7 to each school were paid. This does not include the "Surprise Visits" (see page 22). Any exceptional children discovered were referred for further examination to the A.S.M.O.

With regard to the work the Nurses themselves say "The dressings are gradually decreasing in number and we find that Mothers are trying now to cure little abrasions, boils, etc., themselves, and frequently send for advice regarding treatment of minor ailments."

From the following Return, it is evident that a large saving in School Attendance Grant has been effected through the adoption of the system of Treatment in the Schools.

3.—Treatment in the Home.

Under this heading we are considering those cases that are referred by the School Medical Service for treatment in their own homes. They have to attend from time to time at the Clinic for instruction and supervision as to the results of treatment.

The cases dealt with during 1925 were:—

	Total.	Boys.	Girls.
Pediculosis of the head ...	186	1	185
Scabies	2	—	2
Miscellaneous	30	17	13

Amongst the miscellaneous are such cases as ringworm of the skin, cuts and bruises, various septic sores. It will be seen therefore that the majority of these conditions (especially pediculosis) are essentially those that ought to be attended to by the mother in her own home. In the early days of medical inspection we often heard the cry that we were undermining parental responsibility but time has shown that we have by education assisted the parents in attending in the proper way to their children and thus actually strengthened self-reliance. The treatment of minor ailments in the homes by the mothers is beginning to show an improvement and cases are being dealt with earlier and with more intelligence than formerly.

B.—Treatment of Visual Defects.

There is no alteration to report in our arrangements with the Warrington Infirmary for dealing with cases of Refraction.

From the table on page 60 it will be observed that altogether 445 defects of vision were dealt with—342 under the Local Authority's Scheme, 54 by private practitioners and hospitals, and 49 otherwise (*i.e.*, by opticians, etc.).

Comparing the work for the past five years it will be noted in the following table that the work has been brought up-to-date:

	1925	1924	1923	1922	1921
No. of defects dealt with—					
(*a*) under L.E.A.'s scheme	342	406	276	271	265
(*b*) by private practitioners, etc. ...	54	78	91	70	77
(*c*) otherwise	49	116	154	117	142
Total	445	600	521	458	484
Carried forward into next year ...	55	53	213	249	266

I am indebted to Dr. Fox, who carries out this work at the Infirmary, for the following summary of cases dealt with in 1925:

Summary of Refraction Cases dealt with in 1925:—

	Hyper-metropia	Hyper-metropic Astig-matism	Myopia	Myopic Astig-matism	Mixed Astig-matism	Total
Vision improved ...	89	95	34	35	10	263
Vision not improved..	31	—	—	—	—	31
Defective vision not due to errors of refraction	27	—	—	—	—	27
Normal vision, or 6/9	10	—	—	—	—	10
						331

	Cases.	
Squint	39	5 cases were recommended for a Special School. 1 case found also to be mentally defective.
Nystagmus	2	
Corneal nebulæ	6	
Congenital cataract ...	1	
Congenital coloboma ...	1	
High myopia	6	

Squint Operations.

Three cases (one boy and two girls) were operated on at the Infirmary.

Spectacles.

No. of pairs of Spectacles provided by the Local Education Authority in 1925 276

Cost of Spectacles—Spherical per pair, 3/9

„ „ Cylindrical and Compound ... „ 5/9

The total cost of supplying these is recovered from the parents or guardians.

No. of pairs supplied by Board of Guardians where parents in receipt of relief 15

In the majority of cases when the fact that a child suffers from an error of refraction is pointed out to the parents they readily avail themselves of the opportunity of having the child thoroughly examined and of obtaining a prescription for spectacles. In a few instances, and these as a rule eventually appear before the Committee, the parents do not appreciate the seriousness of the condition and delay obtaining glasses even after the prescription is given and the fact that the glasses can be had on easy payments pointed out. This often necessitates another examination as the child's vision may have deteriorated in the meantime.

This class of parent seems to consider the prescribing of glasses as a sort of fad of the School Medical Service and often at the first available opportunity the spectacles are discarded. An inquiry was made during the year with regard to some 200 or more children who had left school wearing spectacles (see page 51).

C.—Treatment of Defects of Nose and Throat.

From Table II. (page 55) it will be observed that the following defects of the nose and throat were referred for treatment:—

	At routine inspections.	At "special" examinations.
Enlarged Tonsils	150	49
Adenoids	68	77
Enlarged Tonsils and Adenoids	50	65
	268	191
	459	

Altogether 459 cases were referred for treatment, a large increase from the 330 cases the previous year. To some extent this is due to the increase in " Specials," quite a number being sent to us by private practitioners, and in some instances the parents have brought the children of their own accord where they suspected throat trouble.

The treatment is not necessarily operative in every instance and only where the child shows signs of deafness, of marked nasal obstruction, or other serious defect is an operation advised.

Operative Treatment—		
(a) At the Infirmary under our scheme	275	
(b) By private Practitioners	28	
		303
Other forms of treatment		158

In Table IV., Group III. (page 61), we find the number of cases treated during 1925 as follows:—

I am indebted to Dr. Binns, who carries out this work for us at the Infirmary, for the following statistics:—

SUMMARY OF NOSE AND THROAT CASES DEALT WITH IN 1925.

Defects	Satisfactory after operation		Unsatisfactory after operation		Totals		Grand Totals
	Boys	Girls	Boys	Girls	Boys	Girls	
Tonsils	39	43	—	1	39	44	83
Tonsils and Adenoids ...	68	58	4	2	72	60	132
Adenoids... ..	30	24	—	—	30	24	54
Other Defects ...	4	1	—	—	4	1	5
Totals ...	141	126	4	3	145	129	274

Under "other defects" are included nasal polypi and bone deformity.
During the year there were 46 sessions.
Two cases developed serious illness after the operation:—
(1) Abscess of the throat.
(2) Diphtheria.

Arrangements were made during the year (November, 1925) to convey the patients home by ambulance after the operation—a much needed improvement to the scheme.

Ages of those treated—

Between 5—7 years		104 children.
„ 8—11 years		109 „
„ 12—14 years		53 „
No age noted ...		8 „
		274

The cases are operated on about 11 a.m. on Friday mornings, and remain in the Institution until 4.30 p.m. At this time the Health Department ambulance removes them to their own homes.

The number of cases operated on each year at the Infirmary under our scheme varies, as is shown in the following table:—

	Tonsils.	Adenoids.	Tonsils & Adenoids.	Other Defects	Total.
1925	83	53	132	5	274
1924	45	33	92	—	170
1923	94	24	98	—	216
1922	123	20	24	—	167
1921		Unclassified			183
1920	133	45	27	—	205
1919	88	62	94	—	244
1918	81	80	115	—	276

After-Treatment of "Tonsil and Adenoid" Cases.

After the operation the child attends from time to time at the School Clinic, where nasal douching is performed in cases requiring it. Altogether 967 such douches were given by the school nurses. As soon as the School Medical Officer thinks it advisable the child returns to the Infirmary to be seen by the operating Surgeon and if he is satisfied the case is marked off.

A leaflet on breathing exercises for the child is given to the mother, and she is informed of the importance of seeing that the child breathes through the nose. In addition, a notice is sent to the School informing the Head Teacher of the fact that the operation has been performed, and asking that the child should be corrected for mouth breathing.

D.—Treatment of Dental Defects (see pages 61 and 62).

The policy adopted for dealing with dental defects amongst school children in Warrington is for the Dental Officer to begin each year inspecting and treating the 6 to 8-year-olds. As soon as this group is finished he passes on to the higher age-periods, 8 to 9, 9 to 10 years, and so on, for the remainder of the year.

From the following table it will be seen that every child attending the elementary schools has at least one chance of undergoing routine dental inspection each year.

Age 1925. Periods.	Dates.	No. Inspected. Boys.	Girls.	Totals.
4—7	Jan. 5th to 12th	384	454	838
	Feb. 2nd ,, 27th	585	396	981
	Dec. 17th ,, 23rd	236	284	520
8—10	Mar. 2nd to 20th	939	845	1,784
	April 3rd ,, 8th	196	205	401
	May 4th ,, 13th	363	452	815
	Sept. 21 ,, 30th	261	278	539
	Oct. 1st ,, 28th	831	814	1,645
	Nov. 27th ,, 30th	118	131	249
	Dec. 1st ,, 16th	633	634	1,267
11—14	May 25th to 29th	310	369	679
	June 8th ,, 30th	891	726	1,617
	July 1st ,, 15th	599	680	1,279
	Aug. 31st ,, ——	101	21	122
	Sept. 1st ,, 15th	627	756	1,383
		7,074	7,045	14,119

Altogether 14,119 such inspections were carried out in 1925, compared with 17,324 the previous year.

The reason that there were fewer inspections was because more treatment was given than in 1924. On an average the Dentist inspects about 70 children per session in the schools, and treats about 12 per session at the Clinic.

The next table shows for the past five years the proportion of children treated out of those requiring it.

	1925	1924	1923	1922	1921
No. inspected	14119	17324	11946	10782	11753
No. found to require treatment	10536	13107	9024	8035	8160
No. treated (not including those re-treated which in each year were almost equal in numbers)..	3476	2913	3648	4371	4306
Percentage treated	32.9%	22.2%	40.4%	54.3%	52.7%

Up to 1923 practically half those requiring it attended our Clinic for treatment. Towards the end of 1923 a scale of payment was introduced, and had a marked influence in reducing the numbers attending. However, during 1925 an improvement is seen in this respect, and we hope soon to get back at least to the normal 50 per cent.

The Medical Officer refers for dental treatment any child in whom he finds more than four carious teeth at the time of examination. Whereas ten years ago out of 4,000 children 400 or 500 were referred each year (a matter of more than 10 per cent.), now

it is rare to find more than perhaps a score of cases, and these generally amongst the entrants who have not previously attended an Infant Welfare Centre.

The following is the Report on the work by the School Dentist (Mr. Hutchison) :—

TO THE EDUCATION COMMITTEE OF THE COUNTY BOROUGH OF WARRINGTON.

Ladies and Gentlemen,—

I beg to submit my Annual Report on Dental Inspection and Treatment of pupils attending the Elementary and Secondary Schools in the Borough for the year 1925.

The number of children inspected by me was 14,119, of whom 3,533 (25.3%) were found to have sound dentition and required no treatment, and 10,536 (74.6%) showed defects and were referred for treatment.

There has been an appreciable increase in the number of parents who were desirous of having their children treated at the Clinic, the number of such cases being 5,079 (48.2%), as compared with 4,626 (35.3%) in the previous year.

The number of cases actually treated in the Clinic was 3,476, as compared with 2,913 in 1924. More fillings—942 were done this year than were done the previous year, and there was also an increase in the number of extractions, which amounted to 309 permanent and 4,929 temporary teeth. Conservative treatment principally of the molars, both temporary and permanent, has been adopted by me as far as possible.

It is now practically admitted by the Medical and Dental Professions that dental decay is a preventable disease, and in order to combat it all the advice and education we can impart to parents and children must be impressed on their minds. The brushing and cleansing of the teeth night and morning does undoubtedly aid in the prevention of dental caries. Evidence of the beneficial effect of the treatment of children at the Dental Clinic has been shown in preceding years to an appreciable extent by the decrease in the number of cases refusing treatment under our scheme.

The scheme was adopted in the month of June, 1924, and only during the first few months since its inception did the parents seem to resent the charge, but latterly the numbers accepting treatment have increased considerably.

I should also like to suggest that the Dental Clinic be improved and made to look brighter and more attractive by being refitted with up-to-date chair and other requirements.

4—7 The children of this group require careful attention, and extractions are numerous and unavoidable owing to septic conditions prevailing. The six-year-old molars receive my early attention wherever indicating any decay.

8—10 In this group I saved many teeth by filling, but a number had become so bad and troublesome that extraction was the only remedy.

11—14 There was considerable improvement in this group in a large number of children who take an interest in looking after their teeth, which no doubt prevents a good deal of decay.

All the cases requiring treatment, urgent or otherwise, found by the A.S.M.O. were referred to me and dealt with at the Clinic.

Secondary School.

The conditions found were, on the whole, good and showed cleanliness and that the children had carried out the advice and instructions previously given. The number of children inspected during the year was 340. I referred for treatment 170 (50 per cent.), 26 children attending the Clinic subsequently. The general conditions of the teeth of the pupils of this school was of a higher standard than that of the pupils of the Elementary Schools.

I am,

Ladies and Gentlemen,

Your obedient servant,

W. HUTCHISON,

Surgeon Dentist.

E.—Treatment of Uncleanliness.

Some remarks on the incidence of uncleanliness at the routine examinations of the Assistant School Medical Officer will be found on page 12.

The effect of the bi-weekly visits of the Nurses is very evident now in the appearance of the children and although a certain number of children are always to be found at the "surprise" visits in an uncleanly condition or suffering from a mild degree of pediculosis it must be remembered that the standard of inspection is much higher than it was a few years ago.

The following are the particulars of the "Surprise" visits:—

Year	1922	1923	1924	1925
Number of Schools in the Borough	23	23	23	23
Average number of visits per annum paid by Nurses to each School	15	14	12	15
Total number of examinations made by School Nurses to children	34624	42806	32857	43258
Number of children found unclean (2317) excluded	131	95	79	97
Number found suffering from minor ailments (119) excluded	39	25	32	23

The number excluded for dirty heads was 97, although 2,317 in addition were kept under observation in the schools.. All the cases were slight however and the nurses are of opinion that it is now practically impossible for any child to contract pediculosis in our schools and that contagion in this respect solely occurs in the homes.

Legal Proceedings would be taken if necessary under School Attendance Byelaws.

The progressive diminution of recent years of the numbers summoned before the Committee testifies to the great improvement that has taken place.

It is noteworthy that not a single prosecution was found necessary during the last two years:—

	1925	1924	1923	1922	1921	1920
No. of cases of Ped. Cap. summoned before the Committee	12	20	27	81	98	86
No. of cases prosecuted	nil	nil	nil	7	4	7
No. of convictions obtained	—	—	—	5	3	7

F.—Treatment of all other Defects.

The other defects found at routine inspection, except infectious diseases and tuberculosis which are referred at once to the Health Department, received consideration as follows:—

	Referred for treatment	Treated	Still under observation	Left School
Elementary Schools—				
Malnutrition	107	14	89	4
Bronchitis	85	54	31	—
Anæmia	11	11		—
Debility	1	1	—	—
Enlarged Cervical Glands ...	11	8	3	—
Chorea	1	—	1	—
Partial Deafness	1	1	—	—
Hernia	2	2	—	—
Rickets	2	1	1	—
Knock Knee	1	1	—	—
Totals	222	93	125	4

In the first instance we advise these cases to receive treatment from their own doctor.

If the parents cannot afford this we assist them in obtaining a recommendation for attendance at the local Infirmary or, if necessary, from the Poor Law doctors.

The Guild of Social Service, British Red Cross Society and United Services' Fund have all rendered valuable service in defraying the expenses of sending children to special institutions or in providing extra nourishment and clothing.

It will be seen that the majority of the cases in the table are those of *malnutrition* (107 out of 222). These cases occurring in school children are in the majority of instances not due to neglect or carelessness of the parents in any way, but owing to some inherent defect in the child's constitution. There does seem to be a slight though real increase in the proportion of cases found and many of these children were born during the strenuous years of the war. A special register is kept of children suffering from Malnutrition and they are frequently re-examined.

Tuberculosis (for incidence see page 13).

All children suffering from or suspected to be suffering from this disease are referred to and kept under observation at our Tuberculosis Dispensary.

During 1925 the following cases were examined there, where a record was kept of their weight and the physical signs entered on a special chart:—

	No. of Cases.	No. of Examinations.
Tuberculosis of lungs	26	77
Suspected cases and contacts	329	430
Tuberculosis of glands	30	52
,, ,, abdomen	23	37
,, ,, bones and joints	19	28
Other form of tuberculosis	5	5
Totals	432	629
During 1924 there were	267	458

Certain cases have received treatment either at the Dispensary or at the Sanatorium.

(*a*) **Dispensary.**

Two methods of treatment have been employed in the Tuberculosis Department:

(1) Anti-Catarrh Vaccine for those suffering from catarrhal conditions of the nose; and

(2) Tuberculin given percutaneously to quiescent or suspected cases of tuberculosis living under bad conditions and whose resistance was considered likely to break down. 69 cases were under treatment during the year with a total of 1,306 attendances and 51 were still attending on December 31st, 1925. The cases were made up as follows:—

Suspects and contacts	38
Tuberculosis of lungs	14
„ „ glands	8
„ „ abdomen	7
„ „ bones and joints ...	2
	69

(*b*) **Sanatorium.**

Forty-one children were treated at Hefferston Sanatorium during the year composed as follows:—

Notified cases of pulm. tuberculosis	9
Tuberculosis of glands	4
„ „ abdomen	14
„ „ spine	1
Observation cases	13

The average period of stay was 15 weeks and three days, and of 33 cases discharged during the year 20 became quiescent, 12 improved and one showed no improvement. Since discharge 21 have attended school regularly and 14 have continued to attend the dispensary for further treatment.

A scheme for dealing more fully with cases of non-pulmonary tuberculosis has been submitted to the Ministry of Health by the Health Committee.

9.—OPEN AIR EDUCATION.

There is at present for elementary school children in Warrington no open-air day or residential school, neither are there any open-air classrooms in connection with the ordinary schools.

It is very desirable that more provision for open-air education should be made, and it is to be hoped that this will be taken into consideration in planning all the new schools.

The ailing children who would chiefly attend a special school would be those suffering from anæmia, general debility, quiescent pulmonary tuberculosis, other non-infectious tubercular conditions (*e.g.*, glands, abdomen, etc.), bronchitis and asthma, St. Vitus' Dance, malnutrition, infantile paralysis, heart diseases and convalescents from pneumonia.

So far as possible the teachers make use of the playgrounds and sheds as much as they can in the summer time in fine weather. In addition, there are the casual visits to the parks for Nature lessons.

The Warrington Children's Summer Camp is run by a voluntary organisation and carries out a work that is of the greatest benefit to the poor children of the Town.

The method of selection is that the Head Teachers are asked to submit the names of poor children and the cases are then investigated by the School Attendance Officers. The School Medical Officer examines them before they go, to see that they are free from all infectious or contagious conditions.

Last year 226 boys and 226 girls attended camp at Prestatyn, North Wales, in four weeks.

10.—PHYSICAL TRAINING.

No Area Organiser has been appointed, and usually each teacher is responsible for his or her own class.

As far as possible every child undergoes physical training for a period of twenty minutes each day. The syllabus is based on the Syllabus of Physical Training for Schools issued by the Board of Education in 1919. The Town Hall, Parks and Baths Committee have recently given permission for the use of Bank Park for organised games during school hours.

A few Teachers have attended Summer Schools for Physical Training, and thus become acquainted with the most recent methods of teaching the subject.

In addition to the physical education in school hours, the teachers have organised competitions in Football (Association and Rugby), Netball, Rounders, Hockey, and Swimming, which take place outside of school hours and are participated in by all the schools.

11.—PROVISION OF MEALS.

It has not been found necessary during recent years to exercise our powers under the Provision of Meals Acts, 1906-14.

The last time that meals were provided for school children was in the year 1914.

The School Medical Officer approved of the suitability of the dietary and general arrangements made, and in many instances selected the children.

12.—SCHOOL BATHS.

Baths have been installed in three of the schools in the town —at Bolton Council School, at Evelyn Street Council School, and at Oakwood Avenue School.

NUMBER OF CHILDREN USING THE SCHOOL BATHS.

Bolton	180	145	42 (every week)
Evelyn Street	320	—	180 (every fortnight)
Evelyn Street	—	360	— (every 3 weeks)
Oakwood Avenue	200	100	28 (every week)
Totals	700	605	250

All the children in attendance in those classes in which the average age of the scholars is between 11 and 11½ years attend the public swimming baths during school hours.

These children attend each week for a period of about sixteen weeks, but no child is allowed to attend who is suffering from any physical defect which would result in exposure of either himself or other children to undue risks.

During a full normal season about 950 boys and 600 girls receive instruction.

13.—CO-OPERATION OF PARENTS.

In 1,274 instances (31.1%) out of 4,013 examinations at Routine medical inspections, one or both of the parents were present.

These attendances vary greatly according to sex and age of the child being examined, as will be seen from the following table:—

Age Group.	Number Examined.	Number of Parents Present.	Per Cent.
Group I.			
Age 5 Boys	595	350	58.82
,, 6 ,, ...	146	68	46.57
,, 5 Girls	548	299	54.56
,, 6 ,, ...	112	58	51.78
Group II.			
Age 8 Boys	549	143	26.04
,, 9 ,, ...	48	10	20.83
,, 8 Girls	556	186	33.45
,, 9 ,, ...	60	18	30.
Group IV.			
Age 13 Boys	698	43	6.24
,, 14 ,, ...	39	2	5.12
,, 13 Girls	627	89	14.19
,, 14 ,, ...	44	8	18.18
	4,013	1,274	31.74

In the majority of cases the parents act at once on the advice offered, and co-operate willingly in obtaining adequate attention for their children.

Committee Cases and Prosecutions.

Only as a last resort are parents summoned to appear before the School Medical Service Sub-Committee. During 1925 this was found necessary for the following cases:—

Failure to complete payments for Spectacles ...	15
Enlarged Tonsils and Adenoids	3
Ringworm (Scalp)	1
	19

In none of these cases however was it found necessary to prosecute, as the parents consented to do what was required after interviewing the Committee.

The steps taken for dealing with uncleanliness are given on page 34.

14.—CO-OPERATION OF TEACHERS.

(AND TEACHING OF HYGIENE).

The success of the work of the School Medical Service is due in large measure to the help given by the Teachers who co-operate, almost without exception, both willingly and usefully at medical inspections, and in the treatment and after-care of the children.

This is more than ever evident at the present time when so much treatment is being carried out in the schools by the Nurses, for without ready assistance of the Teachers this would not have proved the success that it has.

In addition, however, apart from the valuable hygienic teaching constantly taking place in the schools, the teachers have proved of great service at other times to the Local Health Authority in furthering health propaganda work.

On the occasion of any special outbreak of infectious disease they are supplied, through the Director of Education, with leaflets dealing with the matter, and after specially informing the pupils of the essential details, they see that each scholar is supplied with a leaflet to take home to the parents.

Similarly just before the summer vacation each year a special lesson is given to the children on the "Fly Nuisance," and a special leaflet is distributed.

Again in 1925, during "Health Week," a special effort was made to interest the school children and three special meetings were held in the Parr Hall when films on health subjects were shown on each occasion to not less than 3,000 children.

15.—CO-OPERATION OF SCHOOL OFFICERS.

I have alluded in previous years to the useful services of the School Attendance Officers, and need only repeat that they have again rendered every assistance possible to our Department.

16.—CO-OPERATION OF VOLUNTARY BODIES.

There is the closest co-operation between the School Medical Department and the various voluntary organisations in the area and we are indebted for valuable services rendered during the year to the Council of Social Service, National Society for the Prevention of Cruelty to Children, Warrington, Widnes and District Society for the Blind, United Services' Fund, and West Lancashire Association for the Care of the Mentally Defective amongst others.

17.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

The following table contrasts the numbers of exceptional children in our area compared with the estimated incidence of certain conditions on the average throught the country.

Return showing—

(1) the number of defective children, and

(2) the incidence of the various types of defect per 1,000 children on the registers;

(3) average incidence throughout the country as estimated by Board of Education.

	Warrington		(3) Incidence Estimated by B. of E. for Average of whole Country per 1,000.
	(1) Number of Children.	(2) Incidence per 1,000.	
Blind—Totally	8	.6	.4
Partially	13	.98	1.0
Deaf—Totally	6	.45	.9
Partially	—		.3
Mentally Defective	40	3.03	8 6
Epileptics	50	3 79	.6
Physically Defective:			
Pulmonary and Glandular Tuberculosis—			
Infectious	5	.37	7
Non-infectious	128	9.71	1.7
Active non-pulmonary Tuberculosis	31	2.35	1.5
Delicate Children	181	13.73	15.5
Crippled Children	105	7.96	10.0
Total Physically Defective ...	450	34.14	29.4

It will be seen at once that there is a wide difference between the proportion of cases of mentally defective, epileptic and non-infectious tubercular children found in Warrington, compared with this estimate.

Arrangements are made for a special examination by the School Medical Officer at the earliest possible date of any child suspected of being defective in any way.

A summary of the exceptional children in the area is given in Table III. (page 57).

These exceptional children are dealt with as follows:—

(*a*) **Blind and Deaf.**—All the children in this category found suitable are sent to special institutions in neighbouring districts, as there are no special schools of this type in the Borough.

(*b*) **Physically Defective.**—A register is kept of all the physically defective children in the Borough, and they are kept under frequent and careful supervision.

The numbers in 1925 were:—

Not attending School—	Boys.	Girls.
(*a*) Crippled Children—		
Severe heart disease	4	5
Old infantile paralysis	—	5
Rickets	1	—
Curvature of the Spine	1	—
Amputated leg	1	—
(*b*) Delicate Children	18	31
	25	41

Attending School—	Boys.	Girls.
(*a*) Crippled Children—		
Congenital dislocation	5	2
Old infantile paralysis	18	9
Club foot	5	—
Severe heart disease	16	20
Anchylosis and diseased joints	7	1
Old injuries to bones, muscles or joints	2	1
(*b*) Delicate Children	63	69
	116	102

Among the "**delicate**" children are included such cases as chorea, anæmia, debility, slight rickets, chronic bronchitis, rheumatism, asthma and malnutrition.

All cases of *Rheumatism* and its complications are kept under special supervision and during 1925 out of the whole school population the following were the cases that came to our notice:—

	Total No. of cases.	Under own doctor.	In hospitals.	In convalescent homes.	Kept under observation
Attending school—					
Heart disease	36	7	1	—	28
Chorea	28	18	4	2	4
Rheumatism	4	3	1	—	—
Not attending school—					
Heart disease	9	8	—	1	—
Chorea	14	7	6	1	—
Rheumatism	3	3	—	—	—

In addition to the above there is of course among physically defectives that large class of cases consisting of tuberculosis (pulmonary and non-pulmonary) the number of which is given in table III. on page 57.

During the year a special scheme was submitted to the Ministry of Health for dealing with all cripples suffering from non-pulmonary tuberculosis and this, when approved, will be of the greatest assistance in our work. With regard to all other cripples of school age an **Orthopædic Centre** has been established at the Whitecross Hospital which will act as a "clearing house" for our cases.

Early in 1926 Mr. H. Taylor, M.B,, B.S., M.R.C.S., L.R.C.P., of Liverpool, was appointed as consultant to this centre at a salary of £3 3s. per session. The sessions will probably be fortnightly at first and monthly when all the old cases have been reviewed

Preliminary surgical treatment will be required in many instances but remedial exercises, plaster work, etc., and after-care will be carried out from this centre.

A payment of 2s. per attendance will be made to the Board of Guardians for children receiving treatment at this centre. In addition the Local Education Authority will pay £100 per annum towards the salary of a special Orthopædic Nurse.

(*c*) **Mentally Defective.**—The following feeble-minded children have been certified as suitable for education in a special school:—

Educable—	Boys.	Girls.	Total.
Attending Certified Schools for mentally defective children	1	—	1
Attending Public Elementary Schools ...	10	19	29
At no School or Institution	6	4	10
	17	23	40

In addition certain cases were notified to the Local Control Authority (in the case of Warrington, the Lancashire Asylums Board) under the Mental Deficiency Act, 1913:—

Non-Educable	Boys.	Girls.	Total.
Imbeciles	1	—	1

Compared with last year there is some increase in the number of mentally defective children in our lists (in 1924—32 educable, 2 non-educable) but even now this is much below the average estimated by the Board of Education.

According to the figure given in the table on page 41, out of the 13,180 children on our school registers there should be at least 113 mentally defectives. I do not think the proportion in Warrington is anything like as high as this, but during the past year we have been making a full and careful inquiry into the condition throughout our schools.

Head Teachers were asked to submit lists of all children:—

(a) Who had been certified either M.D. or epileptic;

(b) Whom they had reason to believe to be M.D. or epileptic; and

(c) Who were retarded one, two, three and more than three years

Out of these they were asked to complete the special Form 41 D. in all cases except for children retarded one or two years only.

Up-to-date the result is as follows:—

(i)	No. of children on the registers of schools already inquired into		7626
(ii)	No. of cases in which Form 41D has been completed by Head Teachers	M.D 102 Epilepsy 12	Total 114
(iii)	No. of cases out of (ii) that had already been certified	M.D. 18 Epilepsy 11	Total 29

No. of cases not M.D.			51
,, to be kept under observation			2
,, to be examined for M.D.			32
			114
No. of cases already examined		20	
Moral Imbecile		1	
Feeble Minded		2	
Epilepsy		1	
Backward		16	
		20	

In addition to the above there are four idiots and four imbeciles who have not yet been reported to the Local Authority as they are under seven years of age.

We have not established any special supervisory arrangements for children who remain under the jurisdiction of the Authority but for whom no special schools exist.

They are visited in the usual way from time to time by our School Nurses and the Attendance Officers.

It is possible for those educable ones not attending school to go to the Occupation Centre, which is doing a very useful work.

I am indebted to Miss Andrews for the following account of—

The Warrington Occupation Centre.

"This Centre which was opened in February, 1925, continues to meet at Friars Green School, Cairo Street, on Monday and Thursday afternoons from 2.30 to 4.30, and the class is taken by Miss Goldring and Mrs. Moore alternately.

"It is hoped that in the Autumn of this year, should our grants from the Local Authority permit, we may be able to have an extra session. This with our present staff is impossible, but if we are able to engage a third supervisor we could extend the work.

"We are grateful to the Committee of the Independent Methodist Church for the use of such a suitable room and for their kindness in reducing the rent paid originally.

"The average attendance is six and we should be glad to be put in touch with other children needing this form of training; in other centres in the area we find it a help to have some older defectives attending, and we should be pleased to admit some older pupils who could be taught handwork.

"The children attending are of a very low grade mentally and need the Supervisor's whole attention. It would be a great help if we could hear of a voluntary worker who would play for the drilling, singing and marching so that the Supervisor could give undivided attention to the class.

"One member of the class came to our Camp Holiday at Dyserth in June, 1925, and was much benefited by the holiday which be obviously very much enjoyed.

"There are no Local Subscriptions to the work of the Centre at present, but an appeal will shortly be issued for a little local support."

The following is the Report of the Inspector of the Board of Control:—

Occupation Centre.

Date of Visit.—23rd November, 1925.
Centre.—Friars Green, Cairo Street, Warrington.
Centre Open.—Monday and Thursday, 2.30 to 4.30 p.m.
Supervisors.—Miss Goldring and Mrs. Moore alternately.
Class Room.—Friars Green Independent Methodist School. Satisfactory room.

Maximum Number of Places.—The room in use would hold about 20. There is another room available.

Number on Register.—10 (Statutory 7, Voluntary 3). (Seven for the second half year.)

Average Attendance.—Voluntary, 6.

No. Present To-day.—6.

Types.—The children range in age from seven to 19 years. All are of a low-grade of intelligence. One boy is practically blind. He is very noisy at times and beats his head with his hands. He can always be quieted by hearing the piano. When he is in a restless mood, he needs the supervisor's individual attention, but he has improved and will sit unthreading beads and dropping them into a box. This child will need careful watching as he may become too difficult for the Centre.

Guides.—None. All the children are brought by relatives.

Paid Helpers.—None

Work Taught.—Is all of a most elementary kind. Colour, lacing and buttoning, raffia, knitting and rug making. There is no time-table; domestic work is taught. One girl whose mother had carefully prevented her ever doing anything at home has learnt to wash up after the meal.

Amusements.—Singing, musical games and drill. A separate room is available for drill and games. The afternoons that Miss Goldring is not here, there is no music. A voluntary helper to play one afternoon for half an hour would be a great help.

Remarks.—The parents seem much interested in the work of the Centre. They come in to see the work and buy almost anything the children make. Their contributions average 6d. a week per head.

A simple meal is given each afternoon. Interesting Case Sheets have been started which will I hope be kept up-to-date annually.

This Centre seems to be doing most useful work. It is a pity that there are not more children attending.

(*Signed*) C.L.

(*d*) **Epileptics.**—The following cases are known to us:—

Severe Epilepsy—

	Boys.	Girls.	Total.
Attending public elementary schools ...	5	2	7
At no school or institution	14	21	35
In institutions other than certified schools	—	1	1
Attending certified schools	1	—	1
	20	24	44

Slight Epilepsy—

Attending public elementary schools ...	2	1	3
At no school or institution	—	3	3
	2	4	6

The question of the provision of Special Schools for Defective Children has been before the School Medical Service Committee on many occasions.

It is hoped that before long it will be possible to erect such a school on land that has been obtained on a site in Bewsey Ward.

18.—NURSERY SCHOOLS.

There are no nursery schools in the area.

19.—SECONDARY SCHOOL.

All children attending the Secondary School are medically examined once a year. In addition the School Doctor visits once each term to re-examine certain children and to see any special cases.

The Board's schedule card is used in every instance, and the examination made is a thorough one.

During 1925 there were examined at the Secondary School (see Table I.):—

Boys	163
Girls	177
	340

In addition there were 20 "Special" examinations in the School.

As regards the nutrition of the children (325 in 1923), the classification was as follows:—

	Above normal	Normal	Below normal	Markedly Defective
Girls	1	146	16	—
Boys	20	146	10	1
	21	292	26	1
	6.1%	85.8%	7.6%	.2%

Comparable figures for public elementary school children are given on page 15.

The defects found requiring treatment were:—

Defective vision	9
Enlarged tonsils and adenoids	4
	13

In addition, the following cases were kept under special observation, though not requiring treatment at the time:—

Heart disease	2
Malnutrition	1
Defective vision	7
Other defects	6
	16

The results of the examination of the vision of the children is given in the following table:—

	1925	1924	1923	1922
Total number of children whose vision was examined	340	300	325	311
Number of children with normal vision, both eyes	190 55.8%	198 66%	220 67.6%	223 71.7%
Number of children with good vision (not less than 6/9 both eyes)	72 21.1%	39 13%	37 11.3%	28 9%
Number of children with fair vision (not less than 6/12 and without eye-strain)	11 3.2%	2 .6%	8 2.4%	8 2.5%
Number of children whose vision was corrected by glasses	56 16.4%	44 14.6%	47 14.4%	40 12.8%
Number of children requiring treatment ...	9 2.6%	17 5.6%	13 4%	11 3.5%
Number of children whose vision cannot be improved by glasses	2 .58%	0	0	0 .3%

The general standard of normal vision appears to be somewhat lower although fewer children required treatment than in previous years.

Further examinations—

Boys	5
Girls	6
	11

Re-examinations—

Treatment ...	39
Observation ...	13
	52

It will be noted that the statistics are fairly constant each year.

Further Examinations.

The following were referred for special examination following the routine inspection:—

Boys	9
Girls	6
	15

Re-examinations.

There were 35 re-examinations in following up the cases requiring treatment, and 7 re-examinations of cases under observation.

20.—CONTINUATION SCHOOLS.

When established it is proposed to extend our present system of medical and dental inspection and treatment to the continuation schools.

21.—EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

Remarks on this important subject have been given in previous Reports, notably those for 1920 and 1921.

Employment of Children Byelaws. (Came into operation September, 1921.)

The number of children registered for employment at present is 162

Number of Employment Cards in use, 1/1/25	163
,, ,, issued during the year	158
,, ,, withdrawn during the year ...	159
,, ,, in use, 31/12/25	162
Number of cases contravention of Bye-Laws	94
Warned verbally	89
,, by letter	2
Appeared before S.M.S. Committee	3
Prosecutions	—

These children are all kept under special medical supervision.

Before an employment card is issued the medical history of all applicants is inquired into, and if necessary the S.M.O. examines the child.

During 1925 195 children were medically examined. There were 280 routine examinations, five re-examinations and one special examination. At these altogether one child was found "not fit" for employment

Summary of Occupations.

	Boys.	Girls.
Bakers and Confectioners errands	5	—
Butchers errands	12	—
Chemists errands	1	—
Coal Yard Assistant	1	—
Drapers errands	10	—
Gents Outfitters errands	3	—
Greengrocers errands	13	—
Grocers errands	7	1
Hardware Dealers errands	3	—
Milliners errands	3	—
Milk, Delivery of	30	9
Newspaper, Delivery of	50	3
Shoe Repairers errands	4	—
Stationers errands	4	—
Stables Assistant	1	—
Tobacconists errands	1	—
Wine Merchants errands	1	—
TOTAL ...	149	13

Street Trading Byelaws.

Previously, byelaws regulating street trading allowed children to be licensed from the age of 12 to 16 years. The Education Committee took over the control of street trading in March, 1920, under the Education Act, 1918, the number of children then licensed being 75, of ages from 14 to 16 years. The present byelaws came into operation in September, 1921. No girls under 16 years of age are allowed to engage in street trading, and the age for boys is from 15 to 16 years. There are now only six boys engaged in these occupations.

Number of Licences in use, 1-1-25	9
,, ,, issued during the year	13
,, ,, withdrawn during the year	16
,, ,, in use, 31-12-25	6
Number of cases of contravention of Bye-laws	55
Warned verbally	47
,, by letter	6
Appeared before S.M.S. Committee	2
Prosecutions	1
(Fined, 5/-)	

The number of offences against the byelaws discovered by the Officer is shown for the past four years:—

	No. of Contraventions. Employment of Children. bye-laws.	Street trading. bye-laws.
1925	94	55
1924	151	71
1923	117	98
1922	163	114

The Local Education Authority have set up a Special Juvenile Employment Committee to exercise the powers under Section 107 of the Education Act, 1921, and Section 6 (1) of the Unemployment Insurance Act, 1923.

The Medical Records of any child applying for work are submitted to the Juvenile Employment Bureau, and any necessary extracts attached to their other particulars.

22 Special Inquiries.

Provision of Spectacles.

One of the gratifying features of school medical work is the fact that parents seem to be taking greater interest from year to year. In spite of all the valuable assistance of the teachers in the schools and the almost daily supervision of the children by our nurses, I do not think we could have reached the high standard of cleanliness of the head for instance had it not been for a real co-operation with us on the part of the mothers.

Similarly with minor ailments they seem to recognise now the advantages of prompt and effective treatment. In my last Report some figures were given to show over a series of years (from 1918 to 1924) the extent to which advice as to operative treatment in cases of enlarged tonsils and adenoids was readily accepted. Whereas in 1918 only 68.1 per cent. of parents consented to the operation as soon as the necessity was pointed out the proportion gradually increased to 85.6 per cent. in 1924.

There are still however parents who seem to think some of the forms of treatment we require are mere fads of the present-day school service. Although they comply in most instances with the advice given they quite fail to appreciate its value or importance to the child.

This seems to be most marked in the case of the provision of spectacles.

We have a very complete system for the following up of visual defects and where possible suitable glasses are prescribed in every case. Once the spectacles are obtained each case is noted in the school register and then for the rest of the child's school life care is taken to see that they are worn. An inquiry was made at the end of 1925 to see to what extent children requiring them continued to wear them after leaving school.

A list of all the children wearing spectacles who left school between the Easter Term, 1924, and Christmas Term, 1925, were followed up.

In the course of their usual visits to the home the school nurses filled in certain particulars on a questionaire that was prepared for the purpose.

Altogether 163 children (83 boys, 80 girls) had left school during that time wearing glasses for the correction of defects that rendered the vision worse than six-twelths in at least one eye.

It was found that out of the 163 children, 106 (56 boys, 50 girls) or 65.03 per cent. had discontinued wearing glasses after leaving school. This discontinuance appeared to be quite irrespective of the amount of visual defect present at the last examination.

The factory surgeon rejects, especially for certain industries, children with defective vision unless satisfactorily corrected, and this fact is constantly pointed out to parents. It was found however that out of 39 boys and 41 girls who were presented for examination to the factory surgeon, 14 boys and 18 girls were not wearing their spectacles.

The reasons for the children having ceased to wear them were carefully inquired into in every case.

The following reasons were advanced by the parents:—

		Boys.	Girls.
(i)	Thought they had only to be worn at school and were discontinued as soon as child left	27	18
(ii)	Broken or lost or frames too small	4	5
(iii)	Had been advised not to wear them	6	5
(iv)	Child could see better without them	4	5
(v)	Did not like wearing them	3	4
(vi)	Mother did not think they were necessary	—	1
(vii)	Child wanted gold rims	—	1
(viii)	Could give no reason	12	11
		56	50

With reference to the forms of employment engaged in by the children it was noteworthy that out of the 27 boys and 30 girls still wearing glasses there were no instances of unemployment whereas out of 56 boys and 50 girls who had ceased to wear them 6 boys and 10 girls were unemployed. (Among those not wearing glasses were 9 errand boys and 5 errand girls, whilst there was only one errand boy amongst those wearing glasses.)

The question of unemployment and poverty however did not seem to be the reason for neglect to wear glasses for the social conditions of the cases was as follows:—

	Wearing glasses. Boys.	Girls.
Good homes	20 (74.07%)	19 (63.3%)
Poor and dirty homes	6 (22.2%)	9 (29.%)
Unemployed	1 (3.7%)	2 (6.6%)
	27 (32.5%)	30 (37.5%)

	Not wearing glasses. Boys.	Girls.
Good homes	44 (78.5%)	27 (54%)
Poor and dirty homes	7 (12.4%)	20 (40%)
Unemployed	5 (8.9%)	3 (6%)
	56 (67.4%)	50 (62.5%)

In fact therefore in the case of the boys a larger proportion of those not wearing glasses came from good homes than was the case with those still wearing them.

It would seem therefore as though the failure to continue to wear the requisite spectacles after leaving school was not so much an economic question as a lack of appreciation on the part of parents of the evil results of eye-strain.

Nothing but gradual education will improve this position of affairs.

23.—MISCELLANEOUS.

Examination of Bursars, Student and Pupil Teachers.

During 1925, 15 Candidates for Student Teacherships were medically examined and found fit by the School Medical Officer.

Examination of Children Before Entry to Special Schools.

Girls	3
Boys	8
	11

Number of Children Examined Before Summer Camp.

The total number of children examined by the A.S.M.O. as to fitness to attend the Summer Camp in 1925 was 452.

Table I.—Return of Medical Inspections, 1st January, 1925, to 31st December, 1925.

A. Routine Medical Inspections.

Number of Code Group Inspections—

	Age 5		Age 6		Total,
	Boys	Girls	Boys	Girls	
Entrants	595	548	146	112	1401
	Age 8		Age 9		
Intermediates ...	549	556	48	60	1213
	Age 13		Age 14		
Leavers	689	627	39	44	1399
	TOTALS		Boys 2066 Girls 1947		4013

Number of other Routine Inspections (Secondary School):—

Boys	Girls	Total
163	177	340

B.—Other Inspections.

Number of Special Inspections:—

Elementary Schools		2059
Secondary Schools		20

Number of Re-inspections:—

Elementary Schools	2355
Secondary Schools	57
Total (other Inspections)	4491

Table IIa.—Return of Defects found by Medical Inspection in the year ended 31st December, 1925.

Defect or Disease	ELEMENTARY SCHOOLS				SECONDARY SCHOOL			
	Routine Inspections		Specials		Routine Inspections		Specials	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring Treatment	Requiring to be kept under observation, but NOT requiring treatment.	Requiring Treatment	Requiring to be kept under observation, but NOT requiring treatment.	Requiring Treatment	Requiring to be kept under observation, but NOT requiring treatment.	Requiring Treatment	Requiring to be kept under observation, but NOT requiring treatment.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Malnutrition	54	2	3	—	—	1	—	—
Uncleanliness (See Table IV, Group V.)	211	—	7	—	—	—	—	—
Skin — Ringworm (Scalp) ...	4	—	—	—	—	—	—	—
Skin — ,, (Body) ...	2	—	1	—	—	—	—	—
Skin — Scabies	3	—	—	—	—	—	—	—
Skin — Impetigo	30	—	2	—	—	—		—
Skin — Other diseases (non-Tuberculous)	7	—	2	—	—	—	—	—
Eye — Blepharitis	16	—	3	—	—	—	—	—
Eye — Conjunctivitis	6	—	5	—	—	—	—	—
Eye — Keratitis	—	—	—	—	—	—	—	—
Eye — Corneal Opacities ..	1	1	1	5	—	—	—	—
Eye — Defective vision (excluding Squint) ...	214	9	137	8	9	7	2	—
Eye — Squint	19	6	70	2	—	—	1	—
Eye — Other conditions ...	3	1	3	—	—	—	—	—
Ear — Defective Hearing ..	—	—	1	4	—	—	—	—
Ear — Otitis Media	—	—	—	1	—	—		—
Ear — Other Ear diseases ...	28	3	32	3	—	—	—	—
Nose & Throat — Enlarged Tonsils only	150	37	49	3	3	1	—	—
Nose & Throat — Adenoids only	68	16	77	4	1	—	—	—
Nose & Throat — Enlarged Tonsils and adenoids	50	3	65	2	—	—	—	—
Nose & Throat — Other Conditions ..	3	3	3	7	—	1	—	—
Enlarged Cervical Glands non-Tuberculous	7	19	1	9	—	1	—	—

(1)		(2)	(3)	4)	(5)	(6)	(7)	(8)	(9)
Defective Speech		—	1	—	8	—	—	—	—
Teeth—Dental Diseases (see Table IV, Group IV.)		32	—	—	—	–	—	—	—
Heart and Circulation	Heart Disease: Organic	—	4	—	1	—	1	—	—
	functional	—	3	—	–	—	1	—	—
	Anæmia	3	3	3	—	—	—	—	—
Lungs	Bronchitis	49	2	2	—	—	—	—	—
	Other Non-Tuberculous Diseases	—	—	—	—	—	—	—	—
Tuberculosis	Pulmonary: definite...	—	—	—	—	—	—	—	—
	suspected	—	—	—	—	—	—	—	—
	Non-Pulmonary: Glands	3	–	3	—	—	—	-	—
	Spine	—	—	—	—	—	—	—	—
	Hip	—	–	—	—	-	—	—	—
	Other bones and joints	—	—	—	—	—	—	—	—
	Skin	—	—	—	—	—	—	—	—
	Other forms	—	—	—	—	—	—	—	—
Nervous System	Epilepsy	1	2	—	7	—	—	—	—
	Chorea	—	2	1	7	—	—	—	—
	Other Conditions ...	—	2	—	2	—	—	—	2
Deformities	Rickets	1	2	–	2	—	—	—	—
	Spinal Curvature ...	—	2	—	—	—	1	—	--
	Other forms	—	5	—	4	—	1	—	—
Other Defects and Diseases ...		51	11	6	31	—	1	—	1

TABLE IIB.—Number of INDIVIDUAL CHILDREN found at ROUTINE Medical Inspection to require treatment (excluding uncleanliness and Dental Diseases.

Group (1)	Number of Children		Percentage of children found to require treatment (4)
	Inspected (2)	Found to require treatment (3)	
CODE GROUPS—			
Entrants...	1401	170	12·13
Intermediates	1213	291	23·99
Leavers	1399	228	16·29
Total (Code Groups) ...	4013	689	17·16
Other routine inspections (Secondary School) ...	340	13	3·82

Table III.—Return of all Exceptional Children in the Area.

			Boys	Girls	Total
Blind (including partially blind)	(i) Suitable for training in a School or Class for the totally blind	Attending Certified Schools or Classes for the Blind	3	4	7
		Attending Public Elementary Schools	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	1	—	1
	(ii) Suitable for training in a School or Class for the partially blind	Attending Certified Schools or Classes for the Blind	6	6	12
		Attending Public Elementary Schools	—	1	1
		At other Institutions	—	—	—
		At no School or Institution	—	—	—
Deaf (including deaf and dumb and partially deaf)	(i) Suitable for training in a School or Class for the totally deaf or deaf and dumb	Attending Certified Schools or Classes for the Deaf	1	4	5
		Attending Public Elementary Schools	—	—	—
		At other Institutions.	—	—	—
		At no School or Institution	—	1	1
	(ii) Suitable for training in a School or Class for the partially deaf	Attending Certified Schools or Classes for the Deaf	—	—	—
		Attending Public Elementary Schools	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	—	—	—
Mentally Defective	Feebleminded (cases not notifiable to the Local Control Authority)	Attending Certified Schools for Mentally Defective Children ...	1	—	1
		Attending Public Elementary Schools	10	19	29
		At other Institutions	-	—	—
		At no School or Institution	6	4	10
	Notified to the Local Control Authority during the year	Feebleminded	—	—	—
		Imbeciles	1	—	1
		Idiots	—	—	—
Epileptics	Suffering from severe epilepsy	Attending Certified Special Schools for Epileptics	1	—	1
		In Institutions other than Certified Special Schools	—	1	1
		Attending Public Elementary Schools	5	2	7
		At no School or Institution	14	21	35
	Suffering from epilepsy which is not severe	Attending Public Elementary Schools	2	1	3
		At no School or Institution	—	3	3

TABLE III.—RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys	Girls	Total
Physically Defective	Infectious pulmonary and glandular tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	—	5	5
	Non-infectious but active pulmonary and glandular tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	4	3	7
		At Certified Residential Open Air Schools	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary schools ...	67	39	106
		At other Institutions	2	2	4
		At no School or Institution	5	6	11
	Delicate children (*e.g.* pre or latent tuberculosis, malnutrition, debility, anæmia, etc.)	At Certified Residential Open Air Schools	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary Schools ...	63	69	132
		At other Institutions	—	—	—
		At no School or Institution	18	31	49
	Active non-pulmonary tuberculosis	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	1	2	3
		At Public Elementary Schools ...	6	—	6
		At other Institutions	1	6	7
		At no School or Institution	10	5	15
	Crippled children (other than those with active tuberculosis disease) *e.g.* children suffering from paralysis, &c., and including those with severe heart disease	At Certified Hospital Schools ...	—	—	—
		At Certified Residential Cripple Schools	—	—	—
		At Certified Day Cripple Schools	—	—	—
		At Public Elementary Schools ...	53	33	86
		At other Institutions	1	1	2
		At no School or Institution	7	10	17

Table IV.—Return of Defects Treated during the year ended 31st December, 1925.

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Group V.):—

Disease or Defect	Number of defects treated, or under treatment during the year.		
	Under the Authority's Scheme	Otherwise	Total
(1)	(2)	(3)	(4)
Skin—			
Ringworm (Scalp	58	5	63
Ringworm Body)	24	2	26
Scabies	—	8	8
Impetigo	153	34	187
Other Skin Disease	—	27	27
Minor Eye Defects— (External and other, but excluding cases falling in Group II)	132	60	192
Minor Ear Defects	1	11	12
Miscellaneous— (*e.g.*, minor injuries, bruises, sores chilblains, etc.)	27	185	212
Total	395	332	727

TABLE IV.—Continued.

GROUP II.—DEFECTIVE VISION AND SQUINT (EXCLUDING MINOR EYE DEFECTS TREATED AS MINOR AILMENTS—GLOUP I.) —

Defect or Disease (1)	Number of Defects dealt with: Under the Authority's Scheme (2)	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme (3)	Otherwise (4)	Total (5)
ELEMENTARY SCHOOLS—				
Errors of refraction (including Squint	342	53	*49	444
Other Defect or Disease of the eyes (excluding those recorded in Group I.)	—	1	—	1
Total	342	54	49	445
SECONDARY SCHOOL—				
Errors of refraction (including Squint)	3	4	†7	14
Other Defect or Disease of the eyes (excluding those recorded in Group I.)	—	—	—	—
Total	3	4	7	14

*Includes 11 repairs.
†Includes 3 repairs.

TOTAL NUMBER OF CHILDREN FOR WHOM SPECTACLES WERE PRESCRIBED:—

	Elementary Schools	Secondary School
(*a*) Under the Authority's Scheme	274	1
(*b*) Otherwise	*76	†10

TOTAL NUMBER OF CHILDREN WHO OBTAINED OR RECEIVED SPECTACLES:—

(*a*) Under the Authority's Scheme	268	1
(*b*) Otherwise	*76	†10

*This includes 11 repairs.
†This includes 3 repairs.

TABLE IV.—Continued.

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT:—

Number of Defects				
Received Operative Treatment.			Received other forms of Treatment.	Total number treated,
Under the Authority's Scheme in Clinic or Hospital. (1)	By Private Practitioner or Hospital apart from the Authority's Scheme. (2)	Total (3)	(4)	(5)
ELEMENTARY SCHOOLS				
275	28	303	158	461
SECONDARY SCHOOL				
—	—	—	2	2

GROUP IV.—DENTAL DEFECTS:—

ELEMENTARY SCHOOLS.

(1) Number of children who were:—

(*a*) Inspected by the Dentist:

Routine Age Groups	Aged: 4 ... 56; 5 ... 643; 6 ... 765; 7 ... 424; 8 ... 1742; 9 ... 2388; 10 ... 2636; 11 ... 1484; 12 ... 1398; 13 ... 1226; 14 ... 705	Total	13,467
Specials			652
		Grand Total	14,119

(*b*) Found to require treatment 10,536

(*c*) Actually treated 3,476

(*d*) Re-treated during the year as the rsult of periodical examination 2,484

(2) Half-days devoted to { Inspection ... 201; Treatment ... 307 } Total 508

(3) Attendances made by children for treatment 3,476

(4) Fillings { Permanent teeth ... 620; Temporary teeth ... 322 } Total 942

(5) Extractions { Permanent teeth ... 309; Temporary teeth ... 4929 } Total 5,238

(6) Administrations of general anæsthetics for extractions —

(7) Other operations { Permanent teeth ... 261; Temporary teeth ... 10 } Total 271

TABLE IV.—Continued.

GROUP IV.—DENTAL DEFECTS:—

SECONDARY SCHOOL.

(1) Number of children who were:—

(*a*) Inspected by the Dentist:

Routine Age Groups	Aged: 10 ... 1; 11 ... 49; 12 ... 78; 13 ... 47; 14 ... 66; 15 ... 60; 16 ... 33; 17 ... 5; 18 ... 1	Total 340
Specials		—
		Grand Total 340

(*b*) Found to require treatment	170
(*c*) Actually treated	26
(*d*) Re-treated during the year as a result of periodical examination	22

(2) Half-days devoted to	Inspection ... 15; Treatment ... 3	Total	18
(3) Attendances made by children for treatment			26
(4) Fillings	Permanent teeth ... 23; Temporary teeth ... —	Total	23
(5) Extractions	Permanent teeth ... 2; Temporary teeth ... 17	Total	19
(6) Administration of general anæsthetics for extractions			—
(7) Other operations	Permanent teeth ... 1; Temporary teeth ... —	Total	1

GROUP V.—UNCLEANLINESS AND VERMINOUS CONDITIONS:—

(i) Average number of visits per school made during the year by the School Nurses	15
(ii) Total number of examinations of children in the schools by School Nurses	43,258
(iii) Number of individual children found unclean	2,317
(iv) Number of children cleansed under arrangements made by the Local Education Authority	—
(v) Number of cases in which legal proceedings were taken:—	
(*a*) Under the Education Act, 1921	Nil
(*b*) Under School Attendance Bye-Laws	Nil